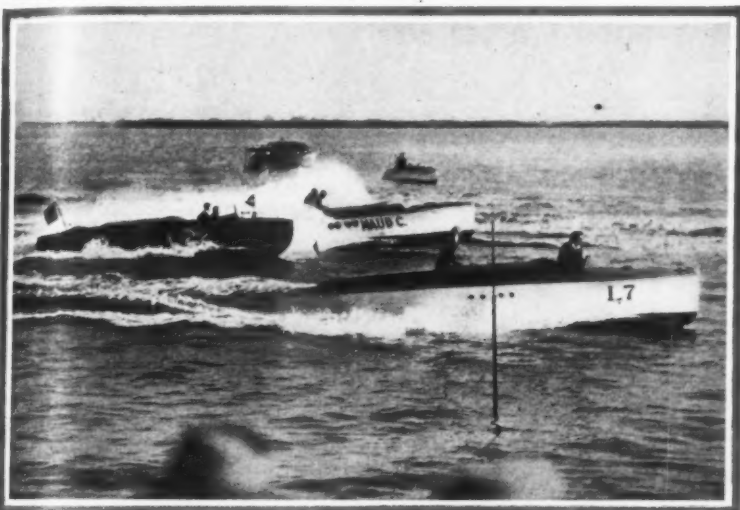


MAY  
1925



Vol. XXXV  
No. 5

Photograph by International



Racing of all kinds is popular in Florida. A class of fast displacement runabouts furnished exciting sport at Sarasota. Miss Ohio, owned by T. W. Roland, covered the nine-mile course in a little over 14 minutes

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Cover Design by Albert D. Neville

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### Next Month

**A**NOTHER interesting installment of Lewis R. Freeman's story, *By Water Ways to Gotham*. A cruise from Milwaukee to New York in a 16-foot rowboat, powered only with an out-board engine of three horsepower. Instructive, entertaining and thrilling.

**A** NEW series of articles by Alfred F. Loomis, written particularly for the benefit of the young folks. An instructive story which will describe the operation of gas engines, both two and four-cycle, and written in elementary language which no boy will fail to comprehend. It will be a veritable education in gas engine technique, and all yachtsmen should see that their offspring read and study these articles.

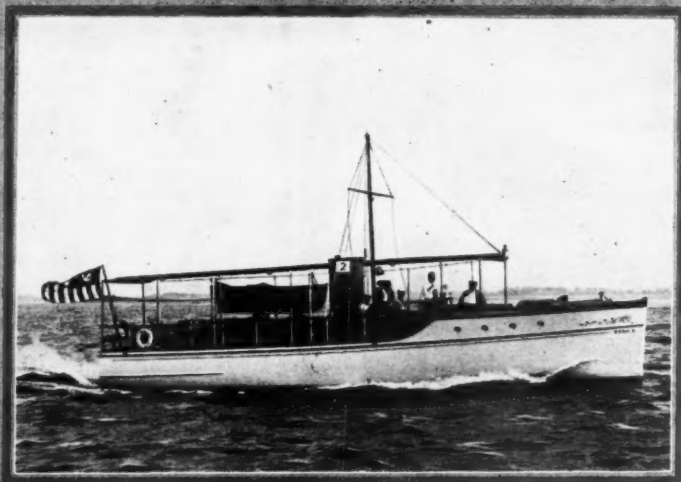
**W**ILLIAM ATKIN has designed for you an exceptional little cruiser. This boat is a flat bottom type and intended for the cruiser of moderate circumstances. A small engine and a comfortable boat, sufficient to afford countless hours of pleasure and recreation to the man with a desire for a boat, but who must do his boating in the least expensive way.

**A**NOTHER valuable educational feature is an illustrated article on the use of current diagrams and tide tables, written and prepared by Commander G. T. Rude, of the Coast and Geodetic Survey. Every yachtsman should read and be familiar with this branch of navigation, since it will frequently save hours of time and many gallons of fuel.

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# TOBIN BRONZE

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Navy Department Says

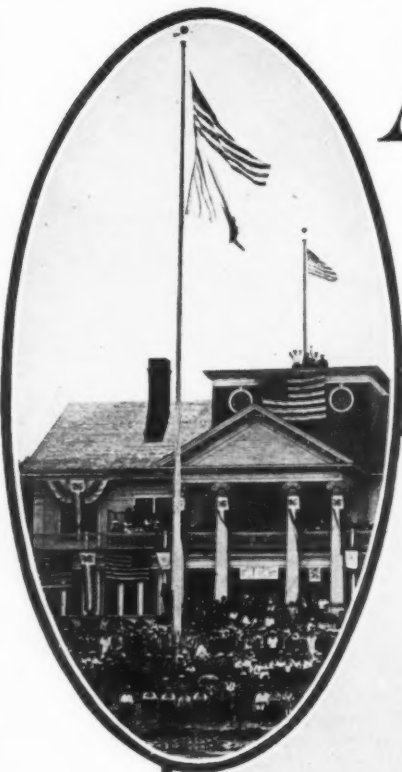
# "Don't Fly the Yacht Ensign ASHORE"

At the right, club staff without yard or gaff. In such an arrangement, the American Ensign is flown on the masthead with the Yacht Club Burgee just below the same

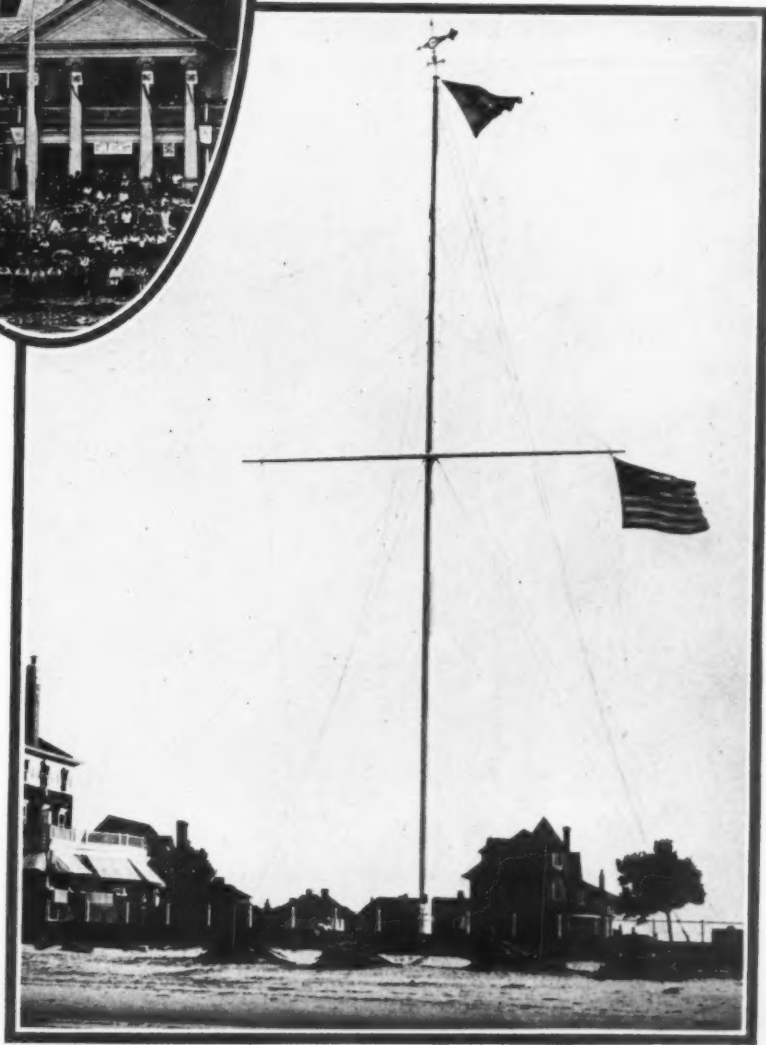
A GREAT deal of confusion seems to exist in the minds of most motor boatmen as to the proper National Flag to fly on the stern staff of their craft. Probably the greater number of the motorboats and yachts today fly the yacht ensign, but there is considerable uncertainty as to whether it is the proper flag which should be flown from this staff.

Strictly speaking, a yacht should display the National Flag of its country from eight in the morning until sundown. The flag which we know as the Yacht Ensign is not the United States Flag and as a matter of fact has never been adopted or officially designated as one of the flags of our country. Therefore, yachtsmen, to be perfectly correct in their flag etiquette, should not fly the Yacht Ensign from the stern staff, but should fly the National Flag, consisting of the thirteen alternate red and white stripes with the blue field and forty-eight stars.

The Yacht Ensign is handed down to us from a practice adopted nearly a century ago, before the first steam yachts or motorboats existed. At that time, the only form of pleasure craft were a few boats propelled by sail. These boats in form and appearance very closely resembled the commercial sailing craft of our country, which at that time were very numerous on the high seas and harbors of our country. Therefore, some sort of distinguishing signal was necessary as an outward sign that the particular boat in question was a yacht and not engaged in commercial pursuits. Our thirtieth Congress authorized, on August 7th, 1848, that all licensed yachts shall use a signal of the form, size and color prescribed by the Secretary of the Navy. The Secretary of the Navy, at that time, designated the Yacht Ensign which



*Yacht Clubs Should Be Particular to Fly the American Ensign at Their Club Houses and Shore Stations*



On a Yacht Club staff without yard but with gaff, the club burgee is flown from the masthead with a U. S. Flag at the yard arm

### The Proper Colors to Fly Flag Staff Having Yard and Gaff

Burgee .....At Masthead.  
U. S. Flag.....At Peak of Gaff.  
Flag of Officer in Command of  
Station for time being.....Starboard end of Yard.  
Signals—Code or private (call).....At Port end of Yard.  
Signals or Union Jack, or For-  
eign Nation flag.....If foreign flag is displayed, sug-  
gest it, and U. S. Flag be at  
yard arms on the same level.  
U. S. Flag on starboard yard  
arm.

### Flag Staff With Gaff (No Yard)

Burgee .....At Masthead.  
U. S. Flag.....At Gaff  
Flag Officer's Signal—Code and  
other Signals—Union Jack ....Hoisted at Masthead and hauled  
down to clear Burgee or visi-  
bility.

Foreign Nation Flag.....Put another block on Gaff.

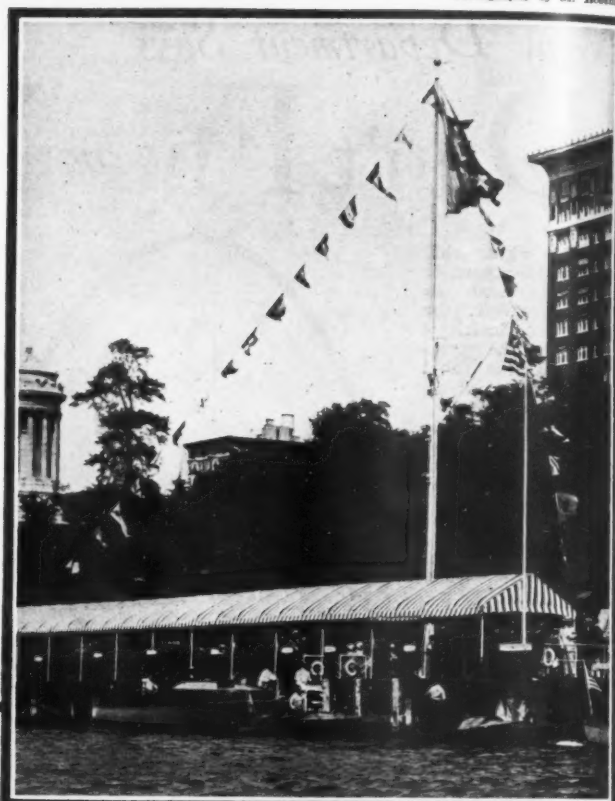
### Flag Staff With Yard (No Gaff)

Burgee .....At Masthead.  
U. S. Flag.....On a Yard Arm.  
Flag Officer's Signal—Code or  
other Signals—Union Jack.....Yard Arm.  
Foreign Nation Flag.....When foreign flag is displayed,  
suggest U. S. Flag starboard  
Yard, foreign flag port yard  
and make signals from mast-  
head.

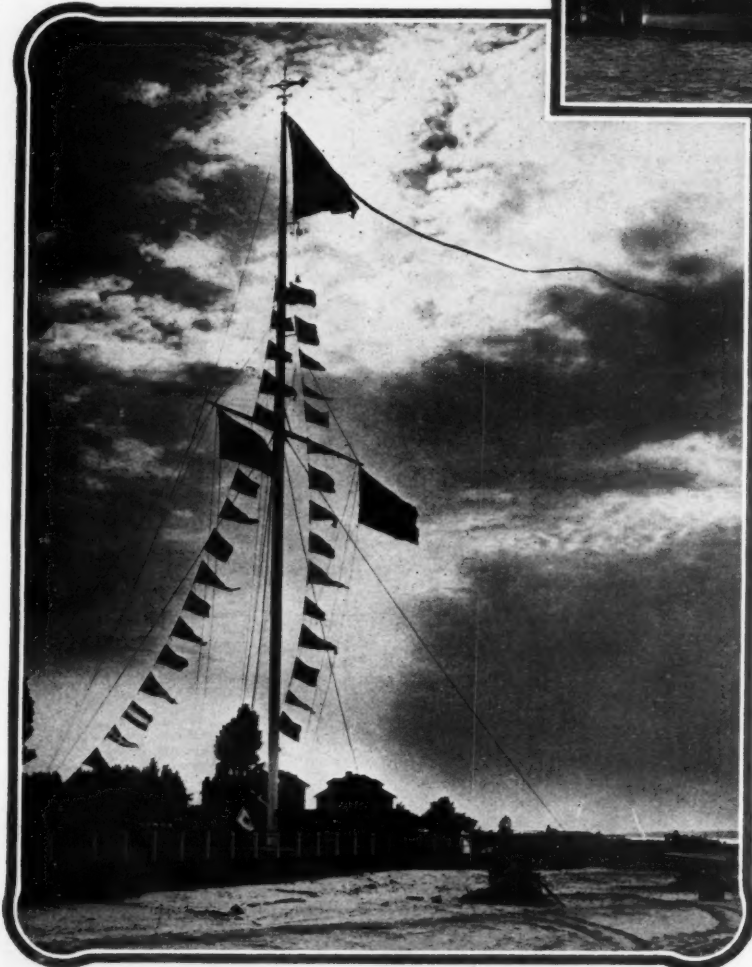
### Flag Staff Without Yard and Gaff

U. S. Flag.....At Masthead  
Burgee .....Below U. S. Flag or two blocks  
if U. S. Flag is not set.  
Flag Officer's Signal.....Below U. S. Flag or two blocks  
if U. S. Flag is not set.  
Code or other Signals.....Below U. S. Flag or two blocks  
if U. S. Flag is not set.  
Union Jack .....Below U. S. Flag or two blocks  
if U. S. Flag is not set.  
Foreign Nation Flag.....On same level with U. S. Flag.

NOTE—The U. S. Flag referred to is the U. S. National  
Flag, NOT the U. S. Yacht Ensign.



On an arrangement where there is a  
gaff but no yard arm, the Club Bur-  
gee is flown from the masthead with  
the U. S. Flag on the gaff



When it is desired to fly the flag of a foreign nation from a mast having  
yard arm only, the Club Burgee should be flown from the masthead with  
U. S. Flag at the starboard yard and foreign flag from the port yard

we have today as the special signal for yachts, and for years it was flown from the rigging of yachts in addition to the American Flag, which was displayed in the same position as on commercial crafts. At the time there was no thought that the Yacht Ensign would in any way replace the American Flag or be used in its stead.

With the coming of the American yacht, and particularly the motor yacht of today, the real use for the Yacht Ensign and the real purpose for which it was originally intended, no longer exists. From their outward appearance any form of yacht today, either a sail or motor, can be easily distinguished from commercial craft. Therefore, it follows that to be strictly in accordance with etiquette and law, our American yachts and motor craft should fly the National Flag and not the Yacht Ensign aft.

However uncertain it may be as to the proper flag or Yacht Ensign to fly aboard our craft when they are in commission, yet the practice and law as to the proper flag to fly ashore is very clear. As mentioned above, the Yacht Ensign is simply designated as a distinguishing signal to be flown on yachts. It was never intended that the Yacht Ensign should in any way or at any time be flown ashore or anywhere else except on a yacht in commission.

(Continued on page 72)

# Cruising on a Dredge

*The Yachting History of Colonel E. H. R. Green, Railroad Builder, Capitalist, Philanthropist and Patron of Motor Boating*

By FRANK PEMBROKE HUCKINS

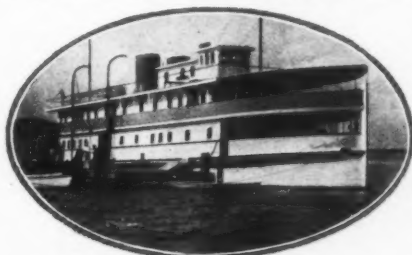
WHILE Howard Lyon and I were sitting out on the Flamingo Dock one day just before the Miami Midwinter Regatta, I looked across Biscayne Bay at a large houseboat, tied up to Star Island, that had aroused my curiosity for over two months. "Who belongs to her?" I asked him, pointing her out.

"Oh, that is the Colonel, that belongs to Colonel Green. He is a real yachtsman. You ought to know him." Then he went on to tell me a lot of the Colonel's experiences afloat. I interrupted to say that they sounded good enough for MoToR BoatinG and the upshot of the conversation was that I got Lyon to intercede with Colonel Green at the next meeting of the Regatta Committee, and he, with considerable reluctance, agreed to be interviewed.

I promptly grabbed Rosey, to take some pictures, drove over to Star Island, and found the Colonel standing on his dock. These big men are doubtless constantly overrun with reporters, and as this was my first experience on a regular interview, I didn't know quite where to begin. The first thing that struck me was that Colonel Green must be a pretty good sportsman to stick to yachting, because he is lame and cannot jump around the way the younger man in the game can, but it certainly has not dampened his



Colonel E. H. R. Green at the entrance to the novel elevator on board his remarkably fine diesel yacht Colonel



Photographs by M. Rosenfeld

enthusiasm. He ordered me to come aboard with a gruffness that was not inhospitable, and promptly walked into an elevator, shut the door and pushed a button. This took my breath away. I have seen some great schemes on yachts before, but this one certainly deserves the blue ribbon for ingenuity in getting around an incapacity that would drive most men out of the sport.

By the time I had decided that we were on a boat and not in an apartment hotel, the elevator stopped, the door opened, and we walked out of one of the smokestacks, mind you, onto the deck. We looked around here a bit, Rosey did his stuff, faded out of the picture, the Colonel gave me another ride in the elevator, down to the promenade deck, or whatever you call the second deck of a yacht big enough to have three decks, and we sat down out forward in extremely comfortable chairs, commanding the best view of the Beach and the race course

that is obtainable outside of an airplane.

"Now," said I, confronting the Colonel with what I tried to make appear as an experienced attitude, "will you tell me the history of your yachting career, starting at the beginning." (I came very near relapsing into the Huck Says style just then and adding, "Which he done.")

(Continued on page 104)



# HUCK Says GOOD BYE MIA

*Burning Breakers,  
Bibulous Blusterers*



WELL, Chap, was you the person what complained of the noise in Cur de Lyon's room in the Flamingo along about two o'clock last night? They blames it on me, but I wasn't the guy what done it. You knows that my room it was next door. The Curdled Lyon, he won a bag of swell golf clubs for coming in second in the Free-for-all at the Midwinter Regatta. Maybe he might of come in first, but the big dumbbell goes into the race with a party of seven guests aboard and then he tries to tell me that he thought the race, it was the next day, and the first thing he knows a gun it bangs off just as he was opposite the judges' boat and he sees a lot of boats start, so he goes along too, and that night he reads in the paper as how he comes in second, and tonight they hands him a bag full of golf clubs and the first thing he done, it was to crack me in the shin with a putter, showing me as how it is done.

But as I was saying before, along about two A. M., just as I was getting to bed early, he comes crashing into his room with a lot of other notorious characters. Right off I hears Wilbur Young start in to tell somebody that Ira Hand, he was a total loss anyways and Ira, he horns in and says as how Wilbur isn't got enough brains to know what a total loss is when he sees one. About the time they has run out of fuel, Harry Greening he starts up and says as how the periphereal speed of a surface propeller, it is such that when the square root of the slip it is divided by ten, that at 99 knots one of the blades of the wheel it is sure to fly off on account of the great torque. I doesn't know about that kind of torque, but their talk, it was getting so loud that pretty soon the night watchman, he bangs on the door and he says, stern-like, "Hey, does you think that this, it is the Senate in session? Doesn't you know that they is some respectable people in this hotel what wants to sleep? Cut it out." Which they done.

They is a lot of things what I wanted to ask you about. I woulda asked you them face to face, but you snook off last night and took the train back to New York when we

"Is you the Hand of V bottom fame?" "No," says Ira, "I is Hand with the round bottom"

# I AM I

## *Bouncing Boats, and Bronzed Babies*

none of us was looking. What was the matter? Was you suspected of bootlegging? Or did one of these Bronzed Mammams try to speak to you? Or what?

Anyways, what I wants to know is as follows: When they is only eight men appointed on the Regatta Committee, how is that when you holds a meeting eighty fellers horns in? Why didn't I get some kind of a prize? Everybody else down here got one, whether they was in a boat race or just talking all the time. Why does all the yachtsmen come from Detroit?

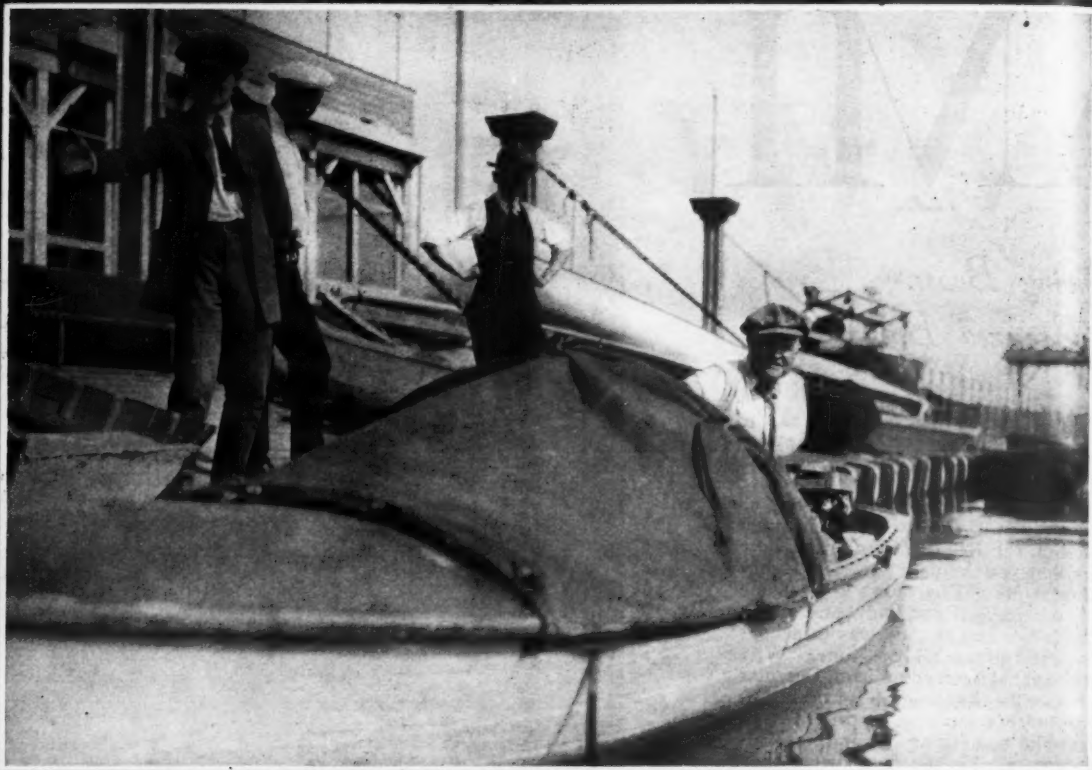
While you is thinking up suitable answers to these questions, I proposes to tell the public something about this Mid-winter Regatta. In the first place, they has a meeting of the Regatta Committee. Commodore Gus Schantz, he opens the meeting with a prayer, that they has a chance race. Then Commodore Kotcher, he makes a speech, either for or against it, I forgets which. Then ten other fellers from Detroit, they makes speeches, either for or against it, I forgets which. Then you puts it to a vote and everybody but Gus Schantz, they votes against it. Then you appoints a committee to clear all the floating bottles off'n the course. Then Gus Schantz, he makes a speech in favor of having a chance race, and when you calls him to order, ten other fellers from Detroit, they gets up, singly and in pairs, and they speaks, for or against it, I forgets which, including Gar Wood, who gets up and claims that his runabouts, they was the only gentlemanly runabouts what would runabout the course. No vote was taken. Then you appoints the Chief of Police to take charge of the Police, which he probably appreciated. Then Commodore Schantz, he gets up and proposes that they has a Chance Race. Then you appoints the Chief of the Fire Department to take charge of the fires, which it was a intelligent thing for you to do, I thinks. Then you asks Ira Hand if he wants to make a speech and he gets up and he says as how he has nothing to say, for which I thinks they ought to give him the Gold Cup.

Then Gus Shantz, he gets up and says as how it would be a good idea to have

*(Continued on page 70)*

Doesn't you know that they is some respectable people in this hotel what wants to sleep. Cut it out





Just before leaving the landing float of the yacht club at Milwaukee

## By Water Ways to GOTHAM

By LEWIS R. FREEMAN

The first part of the Adventure cruise story, *By Water Ways to Gotham* began in April MoToR Boating and described many of the problems incidental to fitting out the boat and securing the needed equipment for its cruise. It is being made in an eighteen foot runabout, fitted with a two-cylinder Elto outboard engine as its sole power plant. The intention is to navigate single handed from Milwaukee to New York, via the Lakes and Rivers. Due to the limited space on board a small boat the big problem is to find space to stow the necessary baggage and provisions. This installment finds the boat actually starting on its voyage.

## UP THE WEST SHORE OF LAKE MICHIGAN

### Part II

**T**HERE is one particular—and one only—in which the man who sails the Great Lakes is better off than the navigator of the major salt water seas. That is on the score of the availability and dependability of weather forecasts. Completely surrounded by settled regions, reports of meteorological changes in every direction makes it possible to forecast the approach of general storms with comparative certainty. On ocean coasts, on the other hand, the great seaward area is largely a blank from the forecaster's standpoint, and considerable disturbances may descend unheralded save by the some-

times cryptic barometer. Radio reports from ships plying the regular sea lanes have mitigated this difficulty considerably, but such weather service is hardly comparable to that available in a region where the movements of storms can be charted hour by hour in whatever direction they are swooping.

Since by far the greater part of the course I had laid out for my voyage through the Lakes was to be along coasts where weather reports would only be available belatedly if at all, there was really no great comfort to be extracted from a condition of which only the regular



navigator could take full advantage. That I did take some heart from it, however, was due to the fact that regular Weather Bureau service was going to be available to the several Coast Guard stations located at convenient intervals along the first, and conceivably the worst, leg of my voyage—the open and stormy west coast of Lake Michigan. With everything still to learn about Great Lakes navigational conditions, this, with reasonable care and luck, would give a fair chance to get shaken down for the work along the wilder and more unsettled coasts farther along.

The fair weather promised for the day set for my departure from Milwaukee came on as forecast. The morning was mild, windless and cloudless, with not even a blur of murkiness hanging as a threat on the northeastern horizon. I was to learn later that most of the days that came with these smiling, shining morning faces had clubs behind their backs in the way of afternoon thunder-squalls. But this day was an exception, bent on playing out the game with the cards thrown down on the table at the opening dawn-time deal.

A highly welcome recruit for the run as far as Green Bay turned up at the last moment in the person of Newell Tellander of the Milwaukee Yacht Club. He had just brought his own yawl through the tail of the late storm from somewhere on the northern lake, but was quite unable to resist the temptation to find out at first hand how the same waters would behave to a rowboat. For my part, overloaded though my little craft promised to be, I was only too glad to have with me for the initiatory period one of the most experienced of Lake Michigan yachtsmen. I was especially pleased at the prospect of having potential help available in the event of a forced landing in rough weather. Just how my boat was going to be taken in through breakers and beached was a problem which I knew was going to take a deal of solving, and it was reassuring to know that my first tentative experiments would have the benefit of an extra head and hand.

To the accompaniment of the cheers of crowds on the bridges and the tooting of whistles, we launched the boat

into the oil- and coal-dust-streaked tongue of water called the Milwaukee River and started for the Yacht Club on the outer harbor. It was like throwing a snow-baby into a pit of tar, with the consequence that what were one moment glossy dove-gray sides, sparkling under a coat of indurated spar varnish as the boat flashed through the sunlight on her maiden plunge, were transformed in an instant to the dusky, unrefulgent smeariness of the bows of a self-dumping coal-barge. Lohengrin's homing swan trying to navigate the great pitch lake of Trinidad

couldn't have made a sadder mess of it. And that was the launching, the occasion so carefully and prayerfully prepared for by sailors that all may be propitious and of good omen! No wonder our friends at the Yacht Club asked if we'd replaced the traditional bottle of champagne with a coal-hod.

And the omen of that far from auspicious launching was singularly prophetic. A month and a half later running through Harlem River and Hell Gate and across Long Island Sound to Flushing—the voyage that had begun in a mile of oil and coal-dust, finished in ten miles of garbage. Yet between these unsavory havens of departure and arrival stretched two thousand miles of the cleanest, greenest water, and a hundred days of the liveliest and most exhilarating navigation I have ever known.

What with a farewell luncheon party at the Yacht Club and the infinite odds and ends of loading, trimming and a final shake-down of outfit, it was close to four-thirty before we were ready to make a start. With the addition of Tellander's weight, the boat sat even lower in the water than I had anticipated; but that was not a matter to worry about until the

wind and sea came up. With the surface of the lake like that of a mill-pond, one could keep dry on a plank.

There was the usual flood of parting advice and admonition, most of it superfluous. That of Captain Kincaide, in command of the Milwaukee Coast Guard station, coming from a man with one of the most notable life-saving records in the service, could not be taken otherwise than seriously.

"Hug the coast pretty close all the way round the west



Ready to push off into the lake at the beginning of the long voyage



The coast guard crew at Sheboygan take their boat out for a practice trip

and north shores of Michigan," he said. "After you get to the Straits of Mackinac you will have islands to dodge behind most of the way to the foot of Georgian Bay. But don't take any unnecessary chances along the open coasts of Lake Michigan. Don't leave harbor if the weather is threatening, and if it becomes threatening while you are out, head for the nearest shore and make your landing before the seas get up. Don't risk keeping out on the lake with bad weather coming up from any direction. A squall off the land may blow you out into the middle of the lake even if it doesn't swamp you, while one from the lake will quickly get up such a sea that you can't count on making a safe landing through the breakers. You'll find it a good rule not to get over four or five miles offshore at any time, no matter how much distance you can save by cutting from point to point."

"But on a day of really settled weather—" I started to protest. I was ready enough to keep port in storms, but still harbored an idea that lost time could be made up by cutting corners when the going was good in between.

Wrinkles etched by a hundred storms on Captain Kincaide's weather-beaten face deepened and lengthened as he tried to repress a smile of amused indulgence.

"I forgot you were a stranger to these waters," he said, half apologetically; "else you'd know that there isn't such a thing as settled weather on the Great Lakes, either in summer or winter. The fairest morning is likely to give you the foulest afternoon. You can't take liberties with them in a ten thousand-ton freighter, let alone where you can beach ahead of bad weather. It's better to be safe than sorry."

It has since occurred to me that these few simple admonitions of Captain Kincaide's might be framed as an epitome of directions for rowboat and canoe navigation of the Great Lakes. My respect for the wisdom of them increased with experience, and especially as a

sequel to the events following the one occasion on which I held them in flagrant disregard. Just as long as I kept them well in mind and acted accordingly, I was safe, or comparatively so; and the time I failed to heed them I was sorry, very sorry, indeed.

With but four hours of daylight left, Port Washington, thirty miles to the north, was the only convenient harbor to be made for the night. Running out through the anchored yachting fleet, we headed up for the north entrance of Milwaukee Harbor. The water was still glassy smooth, with barely a lop against the sides of a breakwater which, three days previously, I had seen almost completely obscured by the heavy surges crashing in against it from the lake. Outside was a continuation of the mirrorlike calm, with the glistening blue-green surface of the lake stretching unbroken to where water and sky merged in the slaty blur of smoke floating above the main steamer track.

Running due north, we passed close to the concrete crib of the old Milwaukee waterworks and headed up the bluff coast. Water with barely enough movement to sparkle in the declining afternoon sun lapped an unending ribbon of silver-bright beach, with patches of sward behind and knots of trees still fresh with early summer's new leafiness. A flock of ducks floated lazily, doubled in size by their reflections in the mirror below. Seaward, a sloop with drooping sail, becalmed, waited for a breath of evening breeze.

There was something strangely familiar in the almost Nirvanic calm of that unwinding diorama of seascape and landscape which not even the staccato of a hard-hitting little motor could quite dispel, and presently I recalled what it was. It was the Great Lakes as I had first glimpsed them, the characteristic Great Lakes picture which had been in my mind when I planned my original quiet water voyage—"just one silver strand after another

(Continued on page 106)

# Among the Glaciers of Alaska

*Thousand Miles of Exploration Along Waterways of Indescribable  
Beauty and Awe-Inspiring Might—Cruising in a Small Boat  
With a Mechanical Kicker*

By JOHN EDWIN HOAG

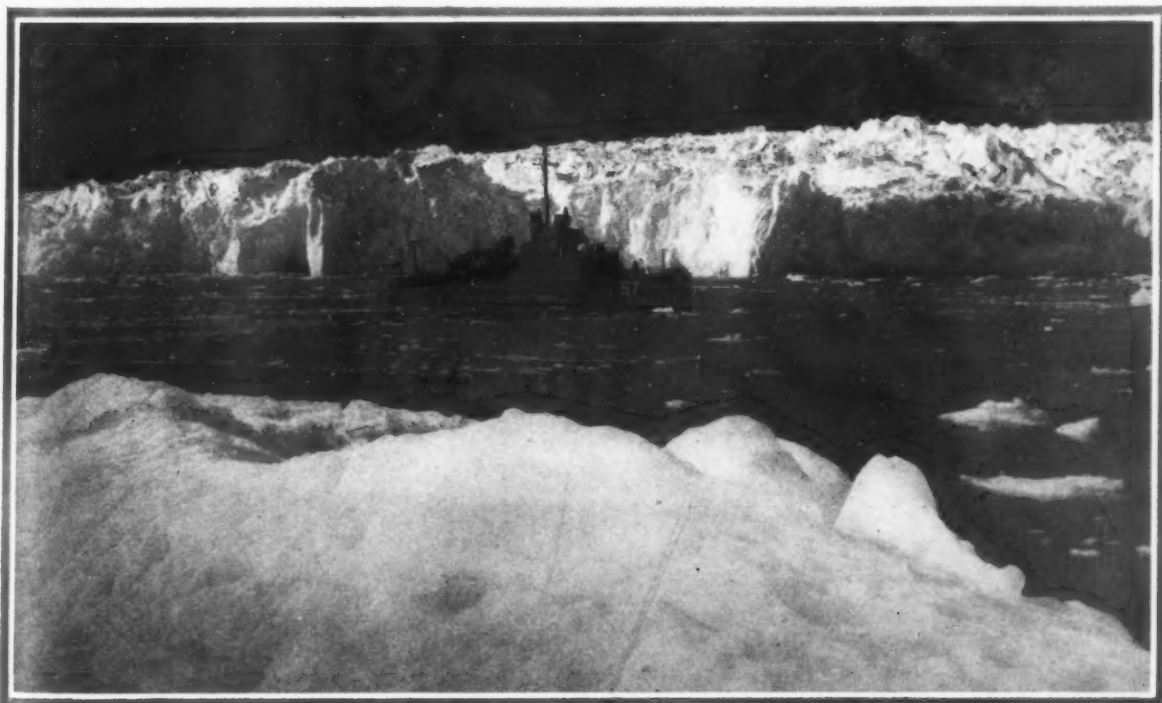
(Photographs by the Author)

RIVERS are not ordinarily salty, and with the exception of a few streams that rise in snow-clad mountains to dwindle away into blistering deserts, it is doubtful if such a thing as a salt water river really exists on the surface of our planet. Yet, within the geographical boundaries of the American Continent, and largely within the political jurisdiction of the United States, there is a stretch of waterway which to the motor-boatman, yachtsman, and lover of indescribably beautiful scenery and geographical phenomenon is nothing more nor less than a salt water river a thousand miles in length. Moreover, this extraordinary sheet of water has approximately 350,000 miles of shore line, and in places is as much as 350 fathoms deep.

That a river a thousand miles in length can have a shore line equivalent to the distance fourteen times around the earth at the equator, makes it obvious that this unusual salt water river has shores that are very

irregular. Its surface is studded with innumerable islands—islands ranging from mere snags of rock to small continents; some of them larger than many of the independent nations of the world. There are bays and inlets along this stream as uncountable as the stars of the Milky Way. These range from tiny coves to great sounds large enough and deep enough to provide safe and roomy anchorage for assembling in a single group all the combined merchant ships and naval vessels of the seven seas.

This tremendous salt water river with its innumerable bays, inlets, coves, and sounds—its almost interminable shore line of virgin forests, rugged snow-clad mountains, titanic glaciers, and sparse human population—is known, for lack of a better name, as The Inside Passages. A fractional portion of its shore and water area has been viewed by tens of thousands of exclamatory first-time tourists, most of whom have enthused over or been



U. S. Eagle Boat No. 57 in front of Taku Glacier, Alaska. Photographed from a floating iceberg





Ikigihk going North on the deck of Eagle 57 among the glacial ice floes in Taku Inlet, Alaska

utterly bewildered by the grandeur of the ever-changing panorama before them as they stood upon the decks of steamships plying between Seattle, Washington, and Skaguay, Alaska. A mere handful of motorboatmen and yachtsmen have learned that here is one of the most magnificent summer playgrounds on the face of the earth. In generations to come millions will learn of this marvelous region, which today is known to comparatively few. Perhaps at some early future date some clever wit will devise a name more colorful than the sorrowful achromatic duo of almost meaningless words, Inside Passages, now used to designate a terrestrial wonderland upon which volumes might be written without even beginning to tell the story.

It was in July last year that Lionel W. Wiedey and the writer dropped off a Southern Pacific train at Portland, Oregon, to supervise the final details of certain alterations and shipment to Seattle of a sixteen foot boat with which we proposed to carry out our own personally and privately conducted cruise through the world's greatest salt water river. Everybody who derived a fragmentary inkling of our plans knew we were insane. Our boat was merely a sixteen-foot Evinrude skiff—the little round-bottom spruce boat built over an oak frame, and cataloged by the Evinrude Motor Company, of Milwaukee, Wisconsin, for use on quiet inland lakes and rivers. For purposes of locomotion it had a 2 h. p. single cylinder Evinrude outboard motor and a pair of oars.



Sometimes when we made camps at high tide, our boat would be beached high and dry a mile or more from water when the tide receded. If a landing was made on a gradually sloping shore the boat could not be launched again until the next high tide

This boat was purchased out of stock at the Milwaukee firm's Portland branch. The only alteration made was to fit it out with a centerboard and an 18-foot mast carrying 250 square feet of cat-rigged sail. This diminutive craft had neither air chambers nor the self-bailing feature with which sea-going life boats are conventionally equipped. Likewise it had no cabin and no provision for sleeping or preparing meals on board. To anyone with the slightest knowledge of boats it was evident that this little 300-pound cockleshell couldn't weather much of a sea without being pounded under. One old Columbia River rat among those already convinced we were crazy, declared that a heavy fog condensing upon the walls of our centerboard well would fill our boat and founder us—therefore, "How in the name of Jehosaphat we expected to cruise from Alaska back to the United States" was "too fur up the gulch" for him.

Further conversation with these boatmen, however, elicited the information that not one of them had any conception of the route we intended to cruise. They visualized our tiny boat being buffeted about like a match stem upon the hissing waves of the open Pacific. We, on the other hand, had spent months studying detailed navigation charts and maps—soliciting information from Canadian and American Government sources, salmon fishermen, sourdough Alaskans, and about everybody else from whom a shred of reliable information might be gained. We had laid out our course through the Inland Passages. We had the tide tables almost committed to memory, and had scheduled our course to move WITH the tides as much as possible, to camp each night, and eat our meals on shore—and never to be beyond paddling distance from dry land with the aid of a life preserver, if we should be so unfortunate as to meet with mishap. We knew every point along the thousand-mile route where we could buy groceries, and had arranged for supplies of gasoline to be awaiting us along the shores over the longer portions of the trip where distance and the limited carrying capacity of our craft would not permit transporting the required amount of fuel.

In due time we arrived in Seattle, called at the freight house for our boat and equipment, and trucked the whole outfit to Colman Dock, where it was put aboard United States Eagle Boat No. 57. Squeaking against the dock, and tugging at her moorings on a rising tide, the naval craft was getting up steam

(Continued on page 128)



**Ikigihk beached at the edge of East Twin Glacier.** Deceptive as it may seem, the ice walls seen in the background are probably 150 feet high and distant a quarter of a mile from the boat and party

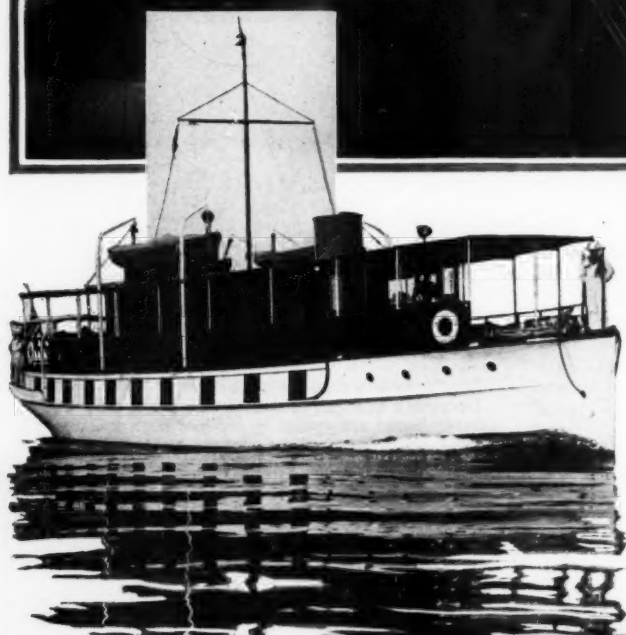


**Ikigihk among the floating drift ice in Twin Glacier Lake**

Photographs by Joseph N. Pearce



Looking forward in the handsome deck house of the new 85-foot houseboat Sequoia, built for Richard M. Cadwalader of Philadelphia by the Mathis Yacht Building Company of Camden, N. J. The boat, together with a similar craft of identical size, built for George D. Rosengarten at the same time, has spent the winter in Florida where the families have lived aboard, and devoted the time to cruising and fishing



# SEQUOIA

*Cruising Houseboats of Large Size Now Being Built with a New Yacht Type Stern of Improved Appearance*

Sequoia is equipped with the new type yacht stern developed by the Mathis Company. This stern increases both the comfort and improves the appearance and lines of the boat. Her symmetry, as compared to the older type, is immediately apparent

The comfortable interior of the after or owner's stateroom. There are four master staterooms in addition to other spaces. The boat is driven by two of the large six cylinder Speedway engines which give her a speed of thirteen miles or more





# Offshore Bottle Fishing

*First Hand Experiences of Clever Bootleggers Whose Business Is Full of Thrills, Adventure and Cunning*

THERE may be hazards to bootlegging. Sometimes it is exceedingly rough and no small boat, excepting a rum runner, will venture out. Sometimes they don't come back. There is a certain amount of shooting, especially when the Federal customs men protestingly capture a rum runner. But rum running today is a kind of fox and hounds proposition, full of thrills and adventure, and with some of the cleverest get-aways ever born of resourceful cunning.

Banty Hogan, a broad little Italian, is responsible for these experiences. Lest there be any question about it, I wouldn't know Banty again if I ever saw him, and this is only hearsay evidence. He said he was employed by a Newark real estate syndicate to haul liquor from the rum fleet. They paid him \$5.00 a case. They also fixed the prohibition people that were fixable, nullified the efforts of the over-zealous officials and kept their men out of trouble. If caught one day, Banty says he would have been bailed out and would have run another boat next day. Banty might deny these yarns and prove he

was the biggest liar in Christendom, which he would be. But when he told me these experiences, Banty was fired with the spirit of adventure. A born smuggler—he enjoyed his work.

His ancestors may have been such as he—sans the fast motor boat and equipment, the speed, the organization, and the ready market of thirsty gentlemen.

"It gettin' dark and ver' wet—one good night for bring in load. But the law outside too and 20 mile boat. I mak 28, mebbie tirty mile no load, but hunnerd cases load 'em down. Bootleggers union fix it up—one bootlegger lame duck down sou-by-east. Take the law wit' him. They figger the law follow and everybody load up—mak believe mebbie engine broke down—run two, t'ree, five cylinders and the law follow. Nearly catch up—but not quite. Engine run good nuf so keep ahead. Engine run pret' dam good when get too close.

"Half hour everybody loading, droppin' cases overside. Botchagalooch! one bootlegger come back too soon for his load and the law searchlight find him again.



A husky gang of fishermen going out in a fast sea skiff, somehow they prefer to work in thick weather



One of the fast boats built for the New York Police Department to cope with the many evil doers in the Harbor

"He come past me two hunnerd ninety horse, wide open, and searchlight shine on me. Right away I dump 70 cases and push out.

"The law come alongside; megaphone—'What you throw overboard?' 'Notin!' They try find cases, but all sunk then. 'Come up on deck,' he say with gun. They throw line and mak fast. They talk business, but we say, 'Got no money, bought load!' I got tree thousand for more load. Strap back my leg—but no pay the law. They mak more talk, good friends, got family home, need money, but we broke. Then they say, 'You run your boat, catch three bootlegger, we let you go.' 'No, can't. Bootleggers' union.' So they try run our boat. We talk. I help prime engine, turn switches. No start. I say, 'Mebbie got no gasolene turned on,' and turn 'em. No start. I got little extra switch off under deck in moulding, but say nothin.' Just help. They try one hour, give up—tie boat on and tow in to barge office.

"Little rough, but dark, and we stand rear deck leaning on rail talking. I look other way and cut rope. About few minutes they find boat and she was gone.

"Law shine searchlight. See boat 'bout quarter mile back and get two sailors and us, and say, 'You bring boat back and tie up.' We say to sailors, 'You no run; how you tink we start? You better stand by wit throw us a line, mebbe we not start too.' So they stay in their boat and we climb in and prime engine and—Botchaga-looch! she start like hell away from those place."

"Didn't the big boat shoot?" I asked. "Naw, little boat between us. We think now the law got

no evidence; can't jail us anyhow," he said, thoughtfully.

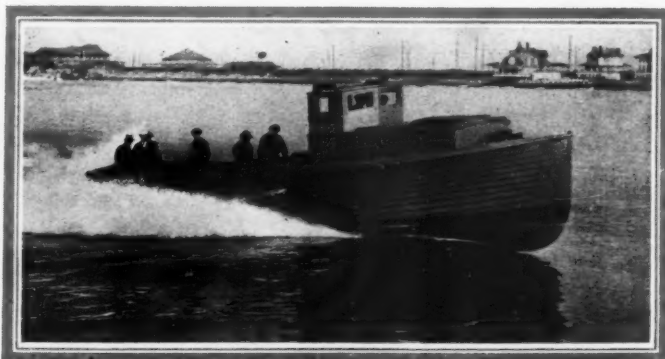
"What about those smoke screens?"

"Sure, we take those extra oil tank, but not need for new oil—put in dirty engine oil and connect to inside exhaust pipe. When the law chase us we turn on valve, let old oil inside exhaust pipe, and smoke up. Engine room armor plate four feet past engine, both sides, and ports bullet proof glass what hits a shot like mark wid chalk."

"Ever get caught?"

"Pret' dam near got it twice. But the law gotta ketch you with cases. Chase one time, but got all cases in burlap bags, tied up together. Run near shore and let go both

ends, pull every bag overboard. Pick 'em up later. 'Nother time, sealed near got us. They got two propellers—half on top of water. We dump cases in circle around us—keep run circle and run circle like clock spring until can't turn closer; dump hundred cases, one at time, around us, and they afraid come in and get us. Cases stay up and wreck propellers. We got only one propeller. Then



A very fast boat of the sea skiff type which goes as a fisherman

we give 'Ha! ha!' and run out.

"One night we chased up Newark Bay by New York City police boat. We got fast boat, big engines, high compression blow concrete out of spark plug. Got one fine engine man. He make spark plug go in without stop engine. Put plug in one cylinder, hop over put plug in 'nother cylinder. Fix other engine. All time put in new plugs. Goin' like hot dog! Our boat loaded, but close 30 mile, but police boat gaining. Railroad bridge

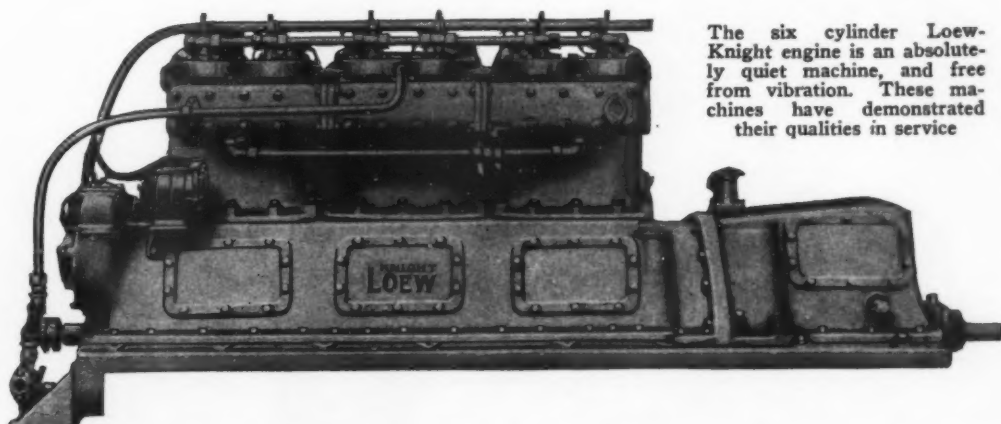
(Continued on page 124)



The 100 foot twin engined yacht Sylvia III is powered with a pair of Loew-Knight, eight cylinder, 6 by 9 inch engines. With these she can maintain a cruising speed of 13½ miles

# A Silent MARINE ENGINE

*The Sleeve Valve Mechanism Applied to Power Marine Units of Large Size Produces a Superior Engine*



The six cylinder Loew-Knight engine is an absolutely quiet machine, and free from vibration. These machines have demonstrated their qualities in service

IT HAS been a foregone conclusion that the Knight type of gasoline engine would eventually find its way into the marine field. It remained only for a responsible company to secure the rights to build this type of machine, and the announcement that the Loew Manufacturing Company of Cleveland is now building a complete line of Knight type marine engines is not surprising. The most surprising feature is that this step was not taken years ago. Earl H. Croft, Vice-President of the Company, is the one mainly responsible for this new development in the marine field. Actual performance tests of these engines have demonstrated that it is a superior power plant. The Loew-Knight engine is not a new engine. It is not untried, but severe tests have shown

its ability to stand up over long periods of time.

The yacht Sylvia III has a remarkable record for reliable service with Loew-Knight engines. She is powered with a pair of eight cylinder 6 by 9 inch engines, which have given a wonderful account of themselves over four years of hard service. She is one of several classes of boats for which the Loew Manufacturing Company of Cleveland is now building a silent engine. This boat is 99½ feet long with a 16-foot beam, and was built for Logan G. Thomson, of Hamilton, Ohio, who remarks that these engines have demonstrated to his entire satisfaction that the silent Knight is a remarkably silent, smooth, dependable, and satisfying marine power plant. Their operation insures freedom from carbon troubles.



# The SHIP MODEL Exhibit

THE third exhibition of the Ship Model Society, held recently at the Architectural League Gallery, was small but very select.

Exhibition privileges were offered to the public in general, in addition to the members and, from a multitude offered, there were accepted enough to show some examples of the best craftsmanship in the various types; a specially desired kind being those models made by their owners.

This, on the whole, was a better plan than the acceptance of all and sundry—good, bad and indifferent,—because the majority of the public are, naturally, unable to discriminate, and the fact of their being exhibited under the

*Attractive Collection of Representative Ship Models Expected to be the Forerunner of a Permanent Marine Museum in New York City*

By E. ARMITAGE McCANN



auspices of the society would give the idea that all were good.

There is a great variety of nationality, period and rig of ship models, but space was too restricted to show more than a few of these, and many of the best examples had been previously exhibited by the members, so were not to be seen this year. Nevertheless, it was quite representative and most

attractive to those interested in ship models, ships, or just fine craftsmanship in general. An interesting feature were the astronomical and other marine relics.

There were seventeenth and eighteenth century British and French gun-ships of antique and modern make, in ivory, box- and pearwood; interesting builder's construction

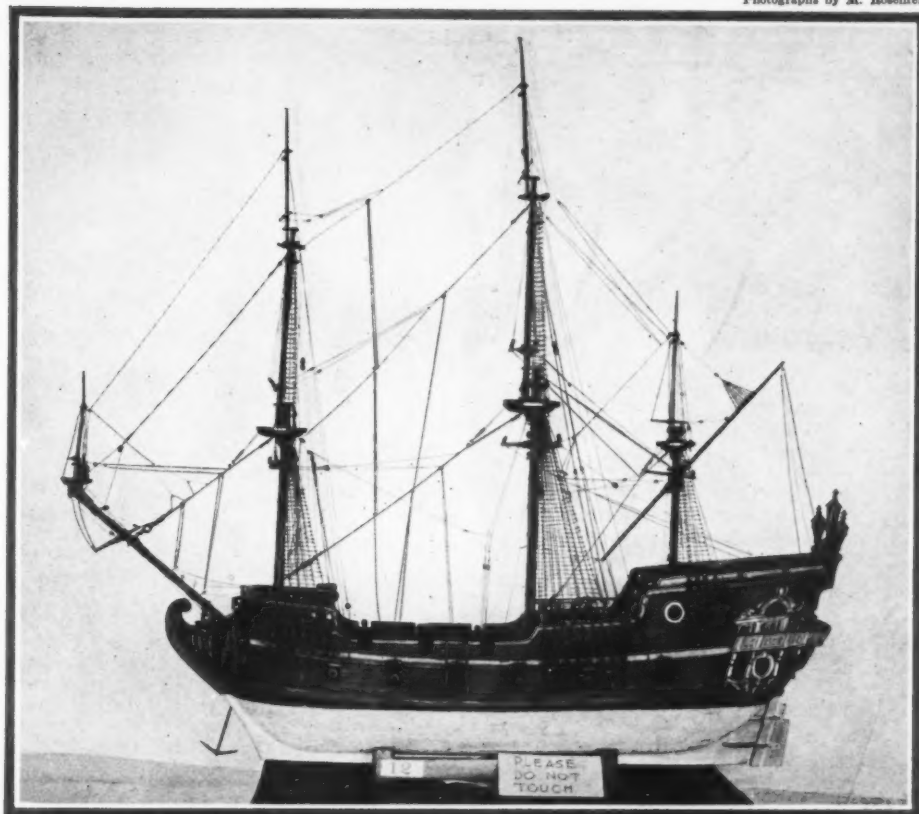


Carefully constructed decorative model of a Spanish ship of about 1588, made by Frederick Stern from a contemporary painting by Aert van Antum

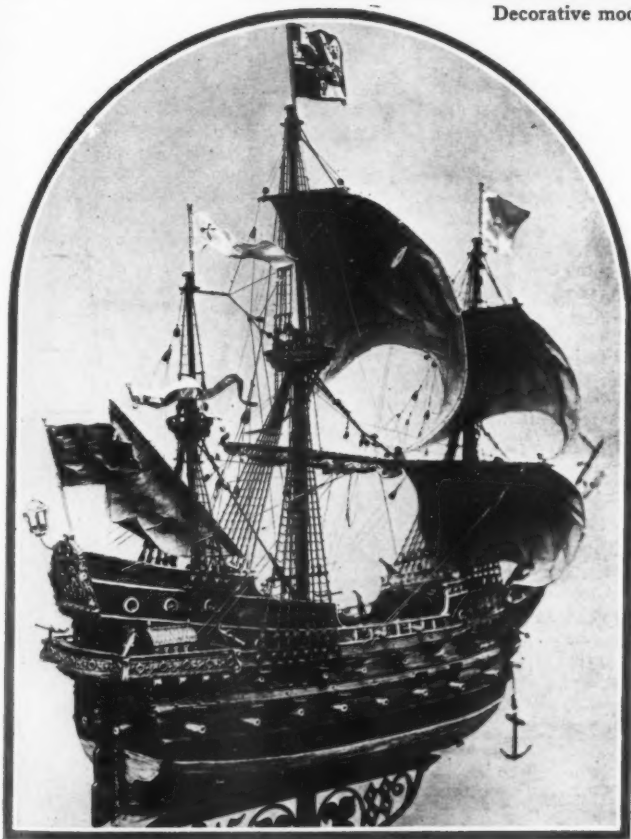
models and half models; Spanish galleons, Dutch ships and yachts; Egyptian and Viking ships and Chinese junks. Then among the more modern types were whalers and whale boats, Block Island boats, topsail schooners, fishing schooners, clippers, ice-yachts, steam ships, models in bottles and, of course, a Santa Maria.

There are all too many caravels about, most of them grossly inaccurate, but the Santa Maria shown was a neat little model by Charles A. Myers, Jr.

The English privateer made by Capt. H. Percy Ashley is an extremely beautiful example of what can be accomplished by a conscientious craftsman, who knows ships, so that he gets the atmosphere in addition to the historical accuracy.



Decorative model of XVII century ship, constructed by Charles M. Gay



Another view of Frederick Stern's Spanish ship, to show the quaint stern gallery

An interesting model of an entirely different type is that of the U. S. S. Dakota, made by Mr. Myers. It is a working model that is controllable from the shore by radio waves.

The box model of the U. S. S. Monitor is historically interesting and is probably contemporaneous.

The bone model of a whaleboat is a fine piece of sailor work, as it shows the fine lines of these boats in the difficult medium of whalebone. It probably belonged to the Scottish whale ship Dundee of about 1860, and is exhibited by N. F. Emmons.

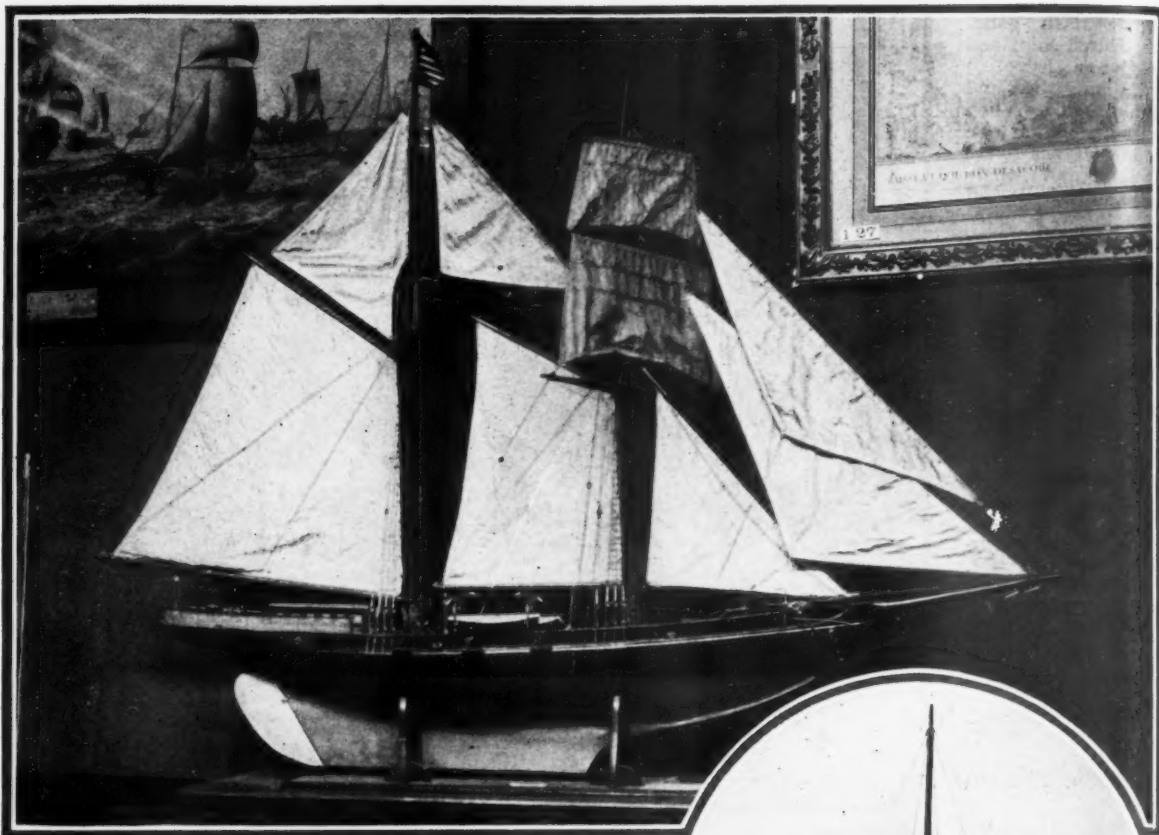
Charles H. Candler's model of the French Galiote à Bombes, Expiation, of about 1774, is unique, in that by means of turning a handle in the base, it will open in the middle, to show the interior construction.

The French Admiralty Model of a double-ended ship proposed by Admiral Willaumez, to be called the Amphidrome, but never built, is interesting as an idea. It has bows with rudders at both ends, and the sails are arranged so that it could sail either way. It is accompanied by a portrait of the Admiral, the date being 1830, and is lent by Junius S. Morgan, Jr.

The French Navy always were great experimenters. On the Charente River there is a long row of obsolete experimental vessels, of weird and wonderful shapes, which they can never use but seem unwilling to break up.

There were some of Col. H. H. Rogers' incomparable Royal dockyard models of the seventeenth and eighteenth centuries, from the Chuckfield Park Collection of Charles Sergison.

Charles R. Patterson's model of the fishing schooner Columbia is interesting as an accurate record of these fast craft, one supposes will not be with us much longer. The same may be said



This is cataloged a topsail schooner and is replete with quaint anachronisms and odd features

of the Block Island boat made by Irving R. Wiles. Block Island, is named for one Capt. Adrian Block, who in 1613 built the first New Amsterdam vessel, called the Onrest.

The collection of twelve canoes lent by Alfred C. Bossom were very interesting as being real native American. They were made by the natives of Vancouver Island, British Columbia, Queen Charlotte Island and Alaska, and show the types they use for seal and whale hunting and the artistic way they decorate them with carvings and paint. Accompanying these was a collection of canoe paddles from the same neighborhood, also finely decorated.

E. W. Ottie's Spanish Galleon and Dutch ship are conscientious work, giving a fine decorative effect, as is Frederick Stern's Spanish ship of about 1588, made from a painting by Aert Van Antum, in the Rijks-museum, Amsterdam.

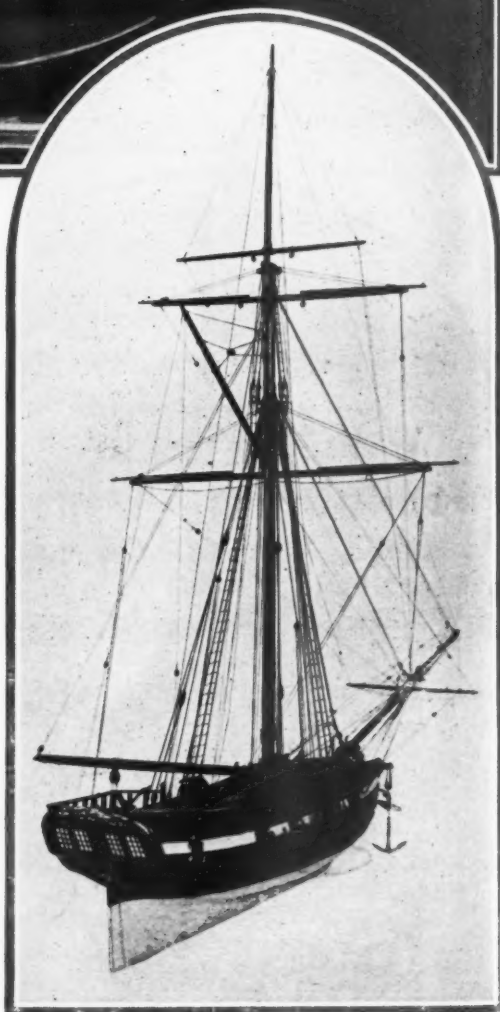
A few oddities, ancient and modern, serve to relieve the intensity, such as the Amphisdrome, mentioned; the vessel with a very modern racing hull, topsail schooner rig and a complete set of brass cannon as an afterthought, or the line of battleship constructed entirely of paper.

Some of the marinalia other than models are quite fascinating and range from an admiral's hat or a sailor's ditty-box to a Japanese compass.

Whitney Warren showed some fine old astrolabes of the sixteenth century. They are beautiful workmanship, but I would not like to have to navigate with their aid only. The eighteenth century octant dedicated to King Louis XVI is, however, quite a practical instrument, though very heavy. Interesting also is the original drawing of a ship in drydock, French, seventeenth century, from which Mr. Warren had his inspiration for the facade of the New York Yacht Club building.

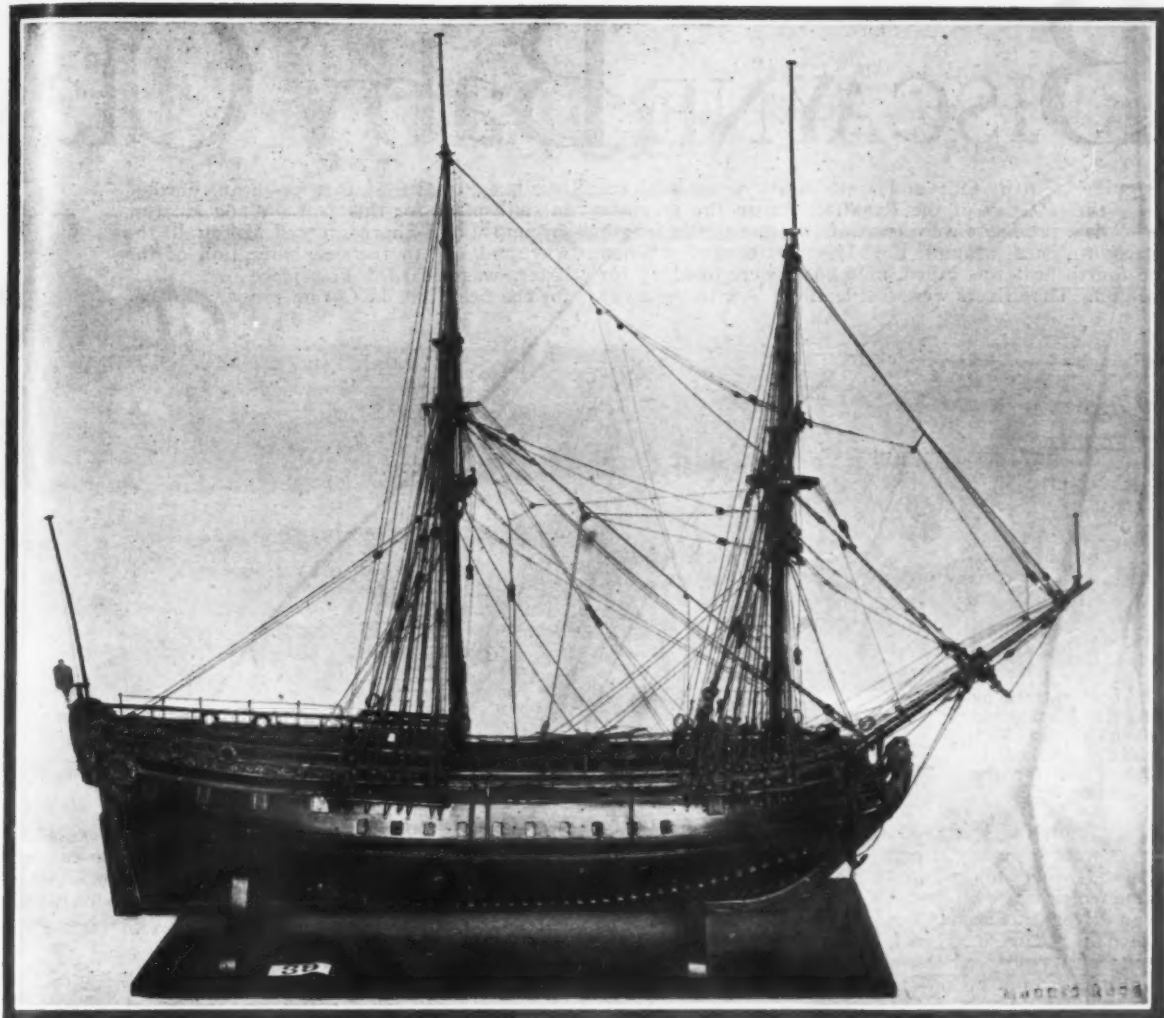
Clarkson A. Collins, Jr., lent a scale model of the foremast of H. M. S. Victory, of 1756, showing the effect of the shot after the battle of Trafalgar. It is made from a piece of the original mast, removed after the battle.

Not the least interesting to those technically inclined were the old books of navigation and ship construction.



Captain H. Perry Ashley's model of a 1720 English privateer. It is very exact yet seamanlike





Pearwood construction model of an English brigantine of late XVII century. Exhibited by Colonel H. H. Rogers

For a background there were prints, photographs and paintings, ancient and modern, of ships and parts of them.

All this is but an illustration of how interesting that Marine Museum, which is the aim of the Society, might be to those who remember sailing vessels, to those who do not but would like to, and to the coming generations.

It is to show, in a small way, to the public what can be accomplished in the direction of a Marine Museum, the public exhibitions of the Society are held.

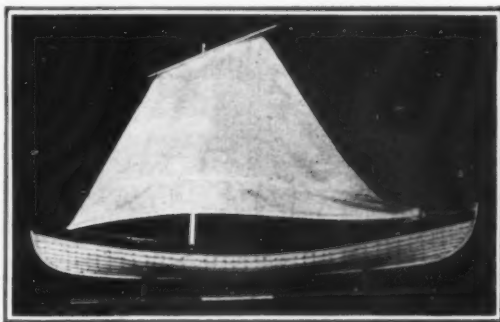
As they state in the catalogue: "It is rather a serious commentary upon the civic activities of our city that it contains no Naval Museum. Itself one of the greatest ports of the world, with a history inextricably interwoven with events of the sea and dependent upon it for its position as the metropolis of a nation of over one hundred and ten million people, the largest city in the world, with museums and permanent exhibitions of almost every nature, it is almost inconceivable that it should

have no place in which might be collected together, cared for, and made accessible to the public, the models, paintings, nautical instruments, objects of interest and literature connected with the sea and the history of our shipping.

"It is the hope that the public will be sufficiently interested in the subject to ultimately demand the institution of such a museum to preserve for future generations the

evidence in tangible form of that branch of the marine of our country now rapidly passing from view forever, to interest them in present methods and means of water transportation and to instruct them both in memories of past greatness and in the importance of shipping in the destinies of our city, that the members dedicated this, the third exhibition."

It is the hope that this interest will be sufficient to enable them to establish a permanent Marine Museum in the City of New York, and it is up to the yachtsman—power or sail—to help the work along.



Contemporary bone model of a whale boat probably of the Scotch ship Dundee, restored and rigged with equipment by B. Hark

# BISCAYNE Baby Class

**T**HE fourth, fifth and sixth heats were held on the last day of the Regatta. As on the previous day, the heats were each of twelve miles in length or eight times around the 1½-mile course. When the fourth heat was called, nine boats were lined up for the gun. The drivers were fast learning how to get away

lap, but in spite of this handicap, finished in sixth place for this heat. Wade Morton, driving Miami Shores, forced Milton all the way, and due to the disqualification of the latter, was awarded first place for the heat. L. L. Corum ran



The boat entered by Venetian Islands and driven by Ira Vail, which finished in sixth place for the entire series

to a wonderful start and the nine boats went over at the crack of the gun, it being impossible to determine which was over first. No amateur drivers, no matter how experienced in racing, have ever made as wonderful a start as these. Before the first turning buoy was reached, Tommy Milton gained a slight lead and continued in the lead until the finish line was reached. However, the judges reported that Tommy had cut a buoy on the second lap and he was, therefore, disqualified from first place and made to run an extra

**I**N the April issue of MoToR BoatinG, we gave the preliminary story of the Miami Beach Regatta, giving in detail the story of the first three heats of the wonderful race between the boats of the class known as Biscayne Babies. It will be recalled that this class consisted of eleven boats of exactly similar design and construction, built by the Purdy Boat Company and powered with 100 h.p. six-cylinder Scripps motors.

In this issue, we give further details of the race for the Biscayne Baby class and emphasize how wonderfully well the Scripps power plants in these boats stood up throughout the six severe heats. These boats were driven by professional automobile drivers who had no previous experience in race-boat handling.

In this issue also we give an account of the race for the Fisher-Allison Trophy, which was won by Gar Wood's Baby Gar IV, and also the first race for the new trophy recently presented to the American Power Boat Association by Horace E. Dodge. This race was won by Baby Gar V, entered and owned by Gar Wood, Jr.



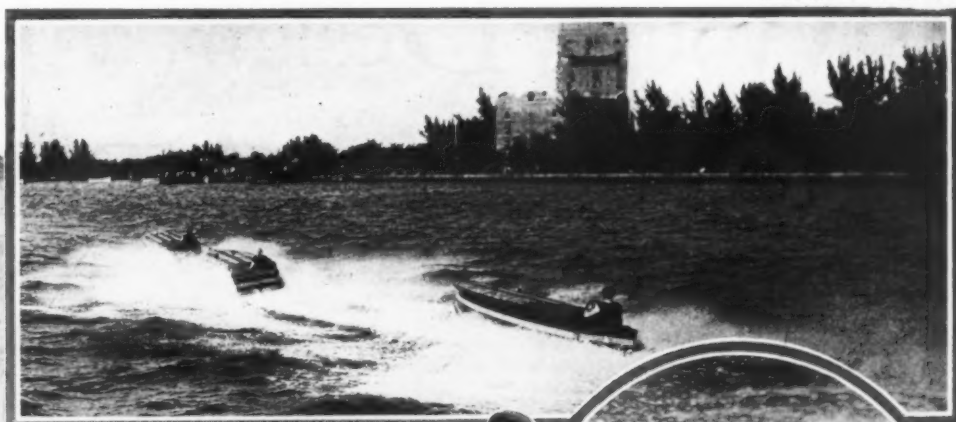
Between races, the boats of the Biscayne Baby class were kept under cover out of the water. This view shows boat entered by Coral Gables and driven by Jerry Wonderlich

# Still Attracts

*Eleven Eighteen Footers  
With One Hundred Horse-  
power Race at Forty Miles  
Per Hour*

Photographs by M. Rosenfeld.

A corner of the race  
course with three of  
the little fellows  
closely bunched

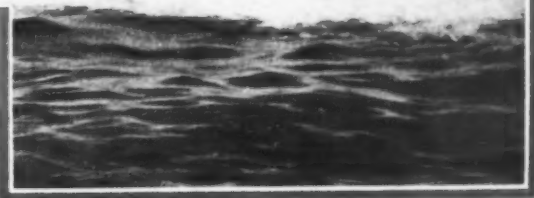


Tommy Milton driving the Mi-  
ami Beach boat, which finished  
in second place



third for two laps, but was finally passed by Ira Vail, who finished in third position, with Corum just astern. Aladdin House, of which much was expected, but which had not shown up very well to now, started off well in fourth position, with Wm. Knipper replacing Harry Hartz at the helm. However, this position was only held for two laps, when Aladdin House dropped back to fifth, being replaced by Corum in his Coral Gables I. In this boat, the best Jerry Wonderlich could do was sixth

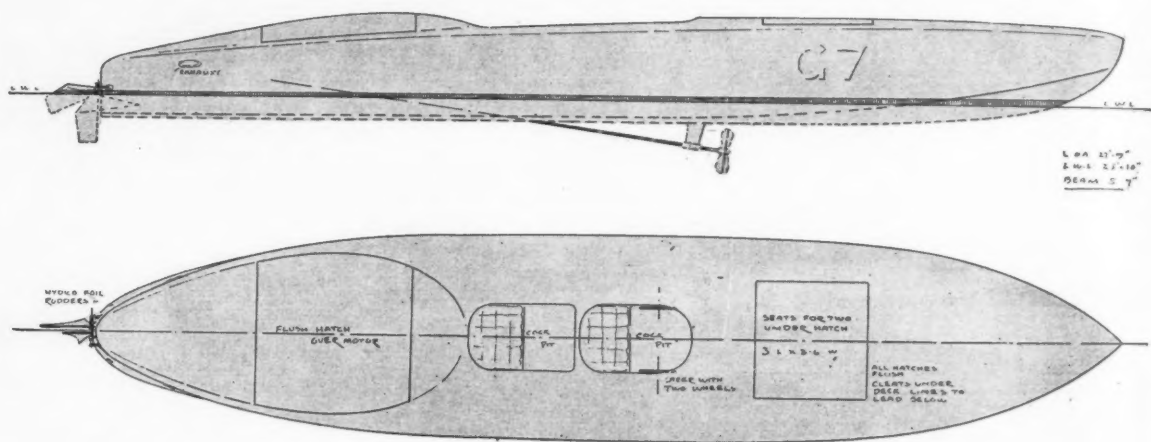
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A view of the Miami Shores boat, with Wade Morton at the helm. The Miami Shores craft finished in third place



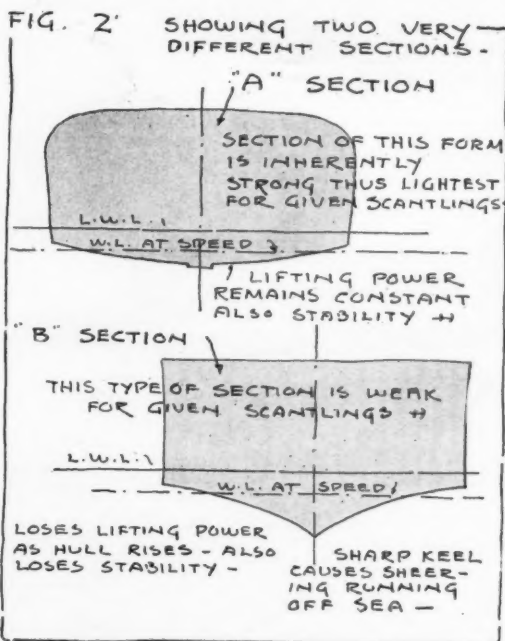
# How I Would Design a Gold Cup Racer—ATKIN



**L**OOKING backward, just what have we accomplished in the way of original and unusual speed in small boats? So far as I can see the newest thing in this branch of the boating field was Viper I; the first surface propeller boat to have made more than a ripple in the field of marine propulsion. Albert Hickman turned that trick, and his flat bottomed little Ferro powered Viper turned the wise ones green—and this all happened over 15 years ago!

The newer runabout hulls with the exception of Miss Columbia, Baby Bootlegger and Rainbow IV, look very much like the concaved V bottomed boats designed by Hand, Fauber, Crouch, Crane, Hacker, and Hussey, all of which were designed and raced years and years ago. We seemed to have reached the ultimate in the design of hulls when Crouch brought out Peter Pan IV in 1910. The hulls of today are very little different from that of James Simpson's famous Crouch flyer. There are minor differences only in the design of the hulls of yes-

Profile and deck arrangement of Atkins ideal Gold Cup racer

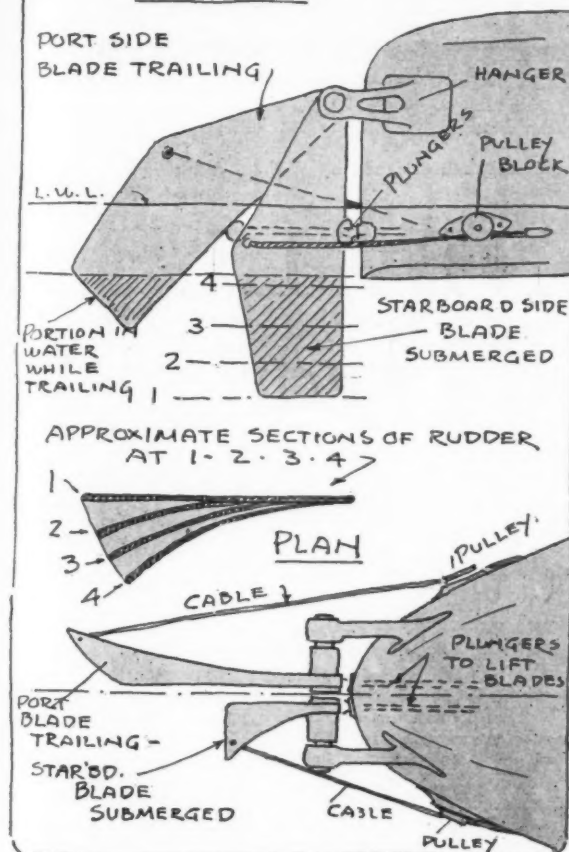


Showing the comparison between different types of hull structure with particular regard to structural strength

terday, and of those of today; the construction remains very much as it always has; and the propellers are practically the same.

But there is a very big difference in the weight and the power output of the motors now being used; and it is here that the secret of the high speeds obtained should be credited. In 1910 Dixie, one time winner of the Gold Cup, was powered with an eight cylinder motor that weighed over a ton! At the time her motor was considered the last word in marine engine practice, and with all this weight it developed but a trifle over 200 h.p., turning but 900 r.p.m.! Even at that Dixie was good for at least 36 miles an hour. Put in one of these little jewel-motors like the Wright Gold Cup model, or the Packard of the same cylinder capacity, in place of the old lumbering motor that propelled Dixie to fame, and that same old craft would make the miles fly! Looking at the problem from the forty different angles possible the same conclusion is reached, namely, that it is the wonder motors now made,

FIG. 3 SHOWING PAIR OF  
HYDRO-FOIL RUDDERS  
ELEVATION



The hydro-foil types of rudder which would seem to have many decided advantages over the older type rudder

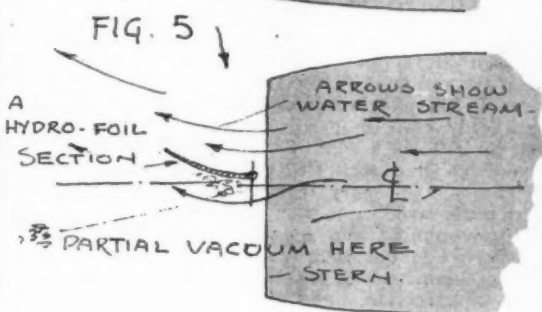
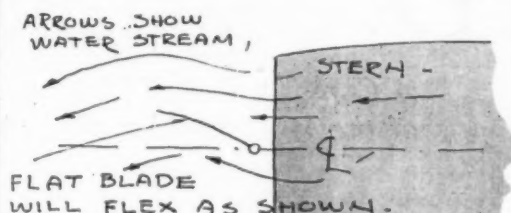
and the attention given to the little details, that make high speed on the water possible; the present form of hull being a secondary consideration.

There does not seem to be a new thing under the sun and so for the items mentioned below I am not claiming originality, as I have no desire to blossom forth as an inventor. Inventors are always being imposed upon by capital, and the iron heel of the almighty dollar is forever going into the other man's pocket; no, I am no inventor, and the other man can have the dollars.

It seems to me that some one should start the ball rolling away from the present trend of runabout design, if for no other reason than for the fun of the thing, which my old friend Bill Nutting says is the best reason in the world. And so I am contributing the thoughts shown here-with and in the sketches so that everyone may see them and those who will may profit thereby.

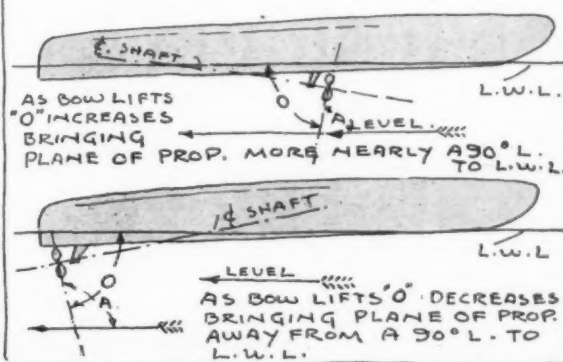
Beginning with Fig. 1 I show the kind of runabout I should build for competition in the Gold Cup Races scheduled for the last of August on Manhasset Bay. She would be 27 feet 9 inches in length over all; 25 feet 10 inches on the water line; and have a beam of 5 feet 7 inches. The freeboard at the bow would be somewhat less than amidships at which point it would be 2 feet. The hull would be of the double end type with all parts above the bottom stream lined after the practice of aeronautical engineering. Rather than the usual concaved bottom sections which seem to have become current practice without exhaustive experimentation for comparison with other forms I should design the boat with absolutely straight buttock lines running parallel to the keel and the sections would have the form shown in Fig.

FIG. 4 SHOWING WATER  
STREAM PASSING USUAL  
TYPE OF PROPELLER -



The water stream action at the rudder with both the hydro-foil and straight rudder blades

FIG. 6 - SHOWING TRACTOR  
AND PUSHER  
SHAFT INCLINATION -

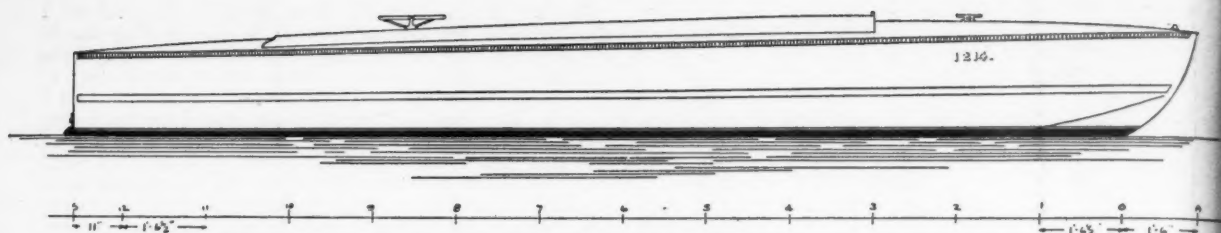


An arrangement of tractor propellers which puts the shaft in tension

2, A, because this form has greater lifting power than B, and has in addition greater strength and stability.

It seems to me that the rudders we are using are nearly obsolete when attached to the stern of a fast going boat. These have the same form as the rudders used by the seamen of China thousands of years ago, which are excellent for sailing craft. In Fig. 3 are shown a pair of rudders of hydro-foil section; these do not swing on a shaft after the old-time manner, rather they are designed to lift and depress, or to trail, as the helmsman wills. It will be seen that the hydro-foil sections are not constant, that the camber increases

(Continued on page 82)



Outboard profile of the speedy little hydroplane Cannonball designed by William Atkin

# CANNONBALL

## A Double Ended Hydroplane

*A Complete Set of Plans and Instructions for Building One of the Most Popular of the Present Day Type of Speedsters*

*Designed Exclusively for MoToR BoatinG*

By WILLIAM ATKIN

**A** HYDROPLANE! And sharp both ends, too. While there is nothing new about the thing, for it must be remembered there is nothing new under the sun anyway, the sharp stern is out of the ordinary. It has many advantages for boats of all types, and for speedy craft in particular. Some one has figured that by building a boat of this size with a sharp stern that the weight of the heavy, square stern was saved, a matter of 50 to 60 pounds; that at least another 50 pounds were saved by the elimination of the bottom construction, and the deck; 100 pounds, at least. Then there is a saving in wetted surface, better turning ability, and far better ability to keep going at full speed in water that would be too rough for the square-sterned type to go at all. Another advantage of the sharp stern is that a great reduction is made in the wind resistance. This is a matter that, until the last year, has entirely escaped the designers of fast boats of all types. Any kind of boat that is designed to buzz along at a speed of 20 miles or more should be to some extent streamlined, for the boat so modeled will be faster than her square-sterned sister, or her sister that carries a lot of projections above the deck.

Another thing to consider in connection with the sharp stern is the fact that it has greater strength than the broad transom, is less prone to leak, and that it is much easier to build as well, requires less lumber, fastenings, and paint. Then from the standpoint of appearance it is far better than the chopped off stern. With the weights of the motor, gasoline and crew placed somewhat forward of where these would be in a wide-sterned boat, the trim and balance, while the boat is under way, will be quite all right.

It will be noticed from the plans that Cannonball is 20 feet 11 inches in over-all length, 19 feet 5 inches on the water line, 5 feet 4½ inches in breadth, and draws

2 feet 1 inch under the propeller. The freeboard at the bow is 2 feet, and at the stern 1 foot 6 inches, the sheer being a perfectly straight line. The sections are all straight lines. There is absolutely no use in building boats of this type with complicated hollowed sections either above or below the water line. Nothing is gained by the latter practice, and by it the construction is very much complicated and weakened.

The construction shown on the plans is of the simplest kind, having 13 frames spaced 1 foot 6½ inches for athwartship strength; with clamps, stringers, keel, and planking for longitudinal strength. The planking is laid double, inside running diagonal at angle of 45 degrees to the keel, and outside normal to the keel; with nothing between but a coat of Jeffery's liquid marine glue. Only a few days ago my friend George W. Smith, Jr., who had charge of the Naval Aircraft Factory, Philadelphia, during the war, told me that the flying boat hulls built after the manner of Cannonball were the ones that lasted longest, and were lighter, than the complicated bent frame type, having a thousand

little members fastened with a million, so to speak, screws and rivets. I was rather glad to hear this as I have also found by experience that the same is true.

If there is a difficult question to solve it is the one concerning the best motor to use in a boat of this kind. As I see the thing, and if I could afford it, I should use a Wright Gold Cup motor, 260 h.p. on a weight of less than 400 pounds, providing the reverse gear is dispensed with. Cannonball would then come within the 625 cubic inch cylinder displacement class limits of the Mississippi River Power Boat Association rules and would be fast for that class. My estimate of her speed with a motor of this size and weight is 58 miles an hour, and that is moving. However, as I am far from the Ritz state of pocket that brings a

### Next Month—A Flat Bottom Cruiser

An unusual little craft has been designed by William Atkin to appear in next month's MoToR BoatinG. This is to be a novel cruiser of 21 feet length and 6 feet 11 inches beam. It is of the flat bottom type, which makes it simple and inexpensive to build, and not being in the high speed class will require only a small engine to drive it very comfortably. Boats of this type are not an untried experiment. A number of them have been built before, each of which turned out to be superior to the one before it. The proportions of this little boat are very good, and there is also sufficient room in the cabin to make it useful. As a sea boat it will be quite the equal of any other small and shallow draft craft of its size.—Editor.



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Designed  
Especially  
for

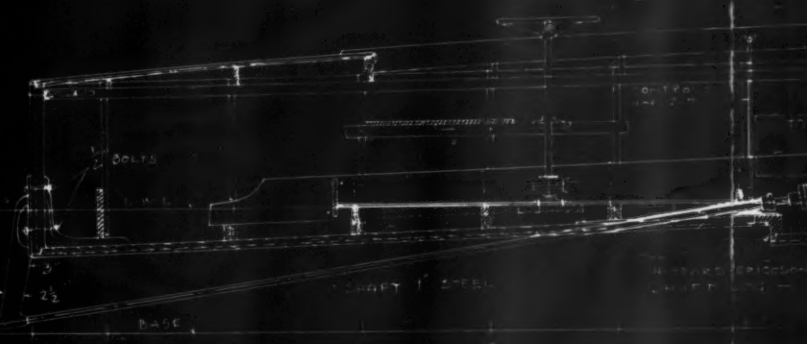


119 West 40th St.  
New York

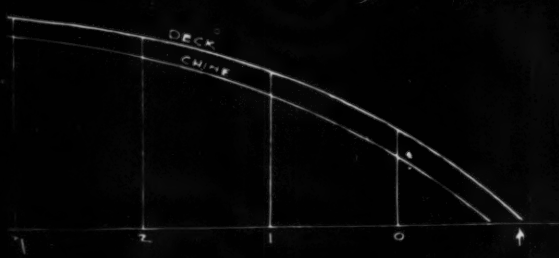
by  
William Atkin



Scale  $\frac{1}{2}'' = 1'-0''$



12" AFT 5 1/2"  
1 PROP. PLATE  
12" AFT 5 1/2"

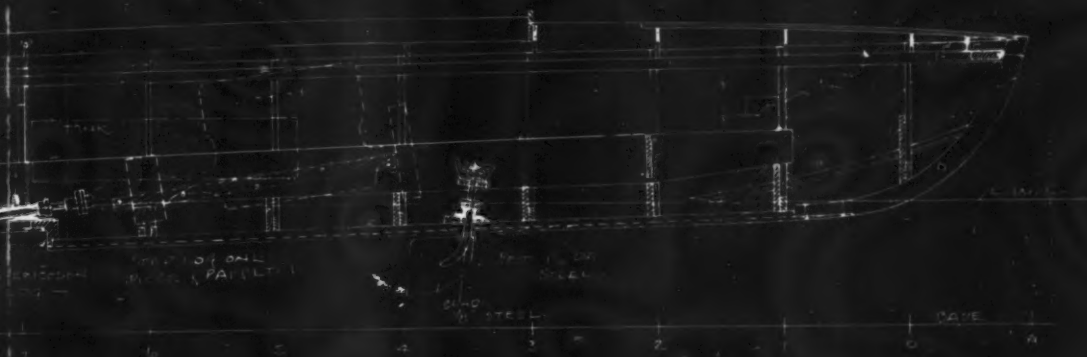


STEEL  
PLATE  
12" AFT 5 1/2"  
1 PROP. PLATE  
12" AFT 5 1/2"

DIMENSIONS	
LENGTH	20'-0"
WIDTH	7'-0"
DEPTH DECK	5'-4"
DEPTH BOTTOM	5'-0"
DRAFT	2'-1"
BASE	2'-0"
STERN	1'-6"
BASE	1'-6" BELOW DECK
LINES TO OUTSIDE PLANKING	

# CANNON BALL

A 21 Foot Hydroplane



MOTOR BOATING'S  
BUILD A BOAT Series





Wright motor within my means, I should go to the other extreme and install a three or four-cylinder Pierce-Boutin two-cycle motor, direct connected to the shaft, or at most with a one-way clutch. The three-cylinder of this size would propel Cannonball at a speed of 35 miles an hour, and the four at a speed of 40 miles. In this matter I am assuming that the two-cyclers are to be of the high-speed type. There are a lot of motors in between these that will give good results, among them being the four-cylinder Hall-Scott, the F-6 Scripps, the Fay & Bowen L. N. 42 special; the Robert's model A; N. J. M. model 8, etc. The motor should not weigh much over 575 pounds and the more turns it makes the more the speed of the boat will be.

There seems little use in my advising the proper size and form of propeller for Cannonball now. Those who contemplate building the boat may write, giving name and model of the motor which they have in mind for the job. With that information I can prescribe the size propeller which seems best for the boat.

By all means lay the lines down on your building floor to full size, for in building a boat of this kind it is absolutely necessary to follow the dimensions to within a very small limit; the slightest hump or hollow in the bottom of any hydroplane is fatal to its performance; the edges of the chines must be fair and exactly like the lines, otherwise the results will be disappointing. Do not change the design, nor the details of construction. Materials, however, may be substituted, for as in some parts of the country it is impossible to secure those shown on the plans. In making substitution, though, bear in mind that it is imperative to keep down weight and so use as light woods as it is possible to buy. Their long life is not so important, because boats of this kind will not stay together for more than four or five years, and even poplar will last longer than this in and out of the water.

The keel should be made first; this is in two lengths, as shown, these being separated by the step. The keel will be made of 1 1/4 by 6 inch oak or yellow pine and will be rabbeted 1/2 inch deep and 1 1/2 inches wide, thus forming a secure and wide landing for the inner edge of the larboard planking. The after end of the keel will be an absolutely straight line, while the fore member will be straight from the step to a point a few inches forward of station 3. From this point it sweeps up to form a fair line with the foot of the stem, as shown in the drawings of the lines. The sweep can be bent in the fore part of the keel when it is set up on the building stocks.

The stem will be made of a hackmatack knee 2 1/2 inches thick and dressed down, as shown. At the deck it will be moulded 3 inches, and at the foot about 3 1/2 inches being tapered between to form a fair line. If a hackmatack knee cannot be secured, the stem can be built up with yellow pine, spruce or fir, making it of three pieces so as to eliminate cross grain. The rabbet must be cut to the thickness of both layers of planking, or 7-16 inch. The stem will be fastened to the keel with two 3/4-inch galvanized flat head iron bolts having the heads let into the keel flush with the bottom; nuts inside over washers.

The stern post will be made of a piece of 2 1/4 by 3 1/2-inch oak and fastened to the keel by the 1 1/2-inch thick

hackmatack knee shown, using 3/4-inch bolts for fastenings. The two bolts into the stern can be removed later and made to hold the strut to the stern. The post will be rabbeted for the reception of the side planks, this rabbet being exactly the same for the length of the post. The after face of the stern will be finished 1 3/4 inches wide.

The thirteen frames will be made after the manner shown at section of frame 6. Sides and bottom members will be made of white oak 3/8 by 2 inches and doubled up on the bottoms with the 3/4-inch thick floor timbers. These timbers will be fastened to the after side of each frame with 1/4-inch galvanized iron bolts. At the corner of the chine the frames will simply butt together, being held secure by the floor timbers. I should not cut the notches for the clamps, chine piece or seam battens until the frame is entirely set up.

The rudder should be made and fitted before the planking is applied; this will be made of steel with a post made of 1 1/16 inch diameter shafting with the lower end slotted to take a steel blade 3/8 inch thick. The blade will be 9 inches long by 10 inches deep, and having the lower forward corner rounded off as shown. The blade will be riveted to the post. A wedge-shaped block will be fitted under a regular light pattern stuffing box and fastened with bolts. There must be a thrust block above the top of the stuffing box to prevent the rudder from twisting and splitting the keel. This will be fastened in later and joined to the motor stringers with metal angles as shown. Notice that the rudder post rakes aft.

The step log will be made of a solid piece and cut to fit the shape of the bottom of the boat and also having the deep rabbet cut in forming the step. This log will be made of white oak, for it must be strong, because this is structurally the weakest part of the boat. The keel ends, and the ends of the chine pieces will be bolted to the step log and also set in marine glue. Here if any place the craft will leak, and therefore the fitting and fastening cannot be too well done.

I should use one of the Hubbard Ericsson's adjustable bronze shaft logs and stuffing boxes for this part of the work, for this is easy to fit, and if the bronze base is bolted to the keel with a canvas gasket laid in glue the thing will remain water-tight for the lifetime of the boat. Another thing, the adjustable stuffing box will simplify aligning the motor and the shaft, a difficult thing to accomplish at best. The shaft need not be over 1 inch in diameter at most, even with the 260 h.p. motor mentioned above installed; 3/4-inch diameter will be ample for any motor developing under 50 h.p.

A boat of this kind can be built either bottom side up or bottom side down; there are advantages both ways. But however the thing is done, one must be careful that the frames are set square with the center line; plumb with it, and that they are exactly spaced and centered. If these matters are not taken care of the boat will be unfair and unlike the plans; therefore unsatisfactory.

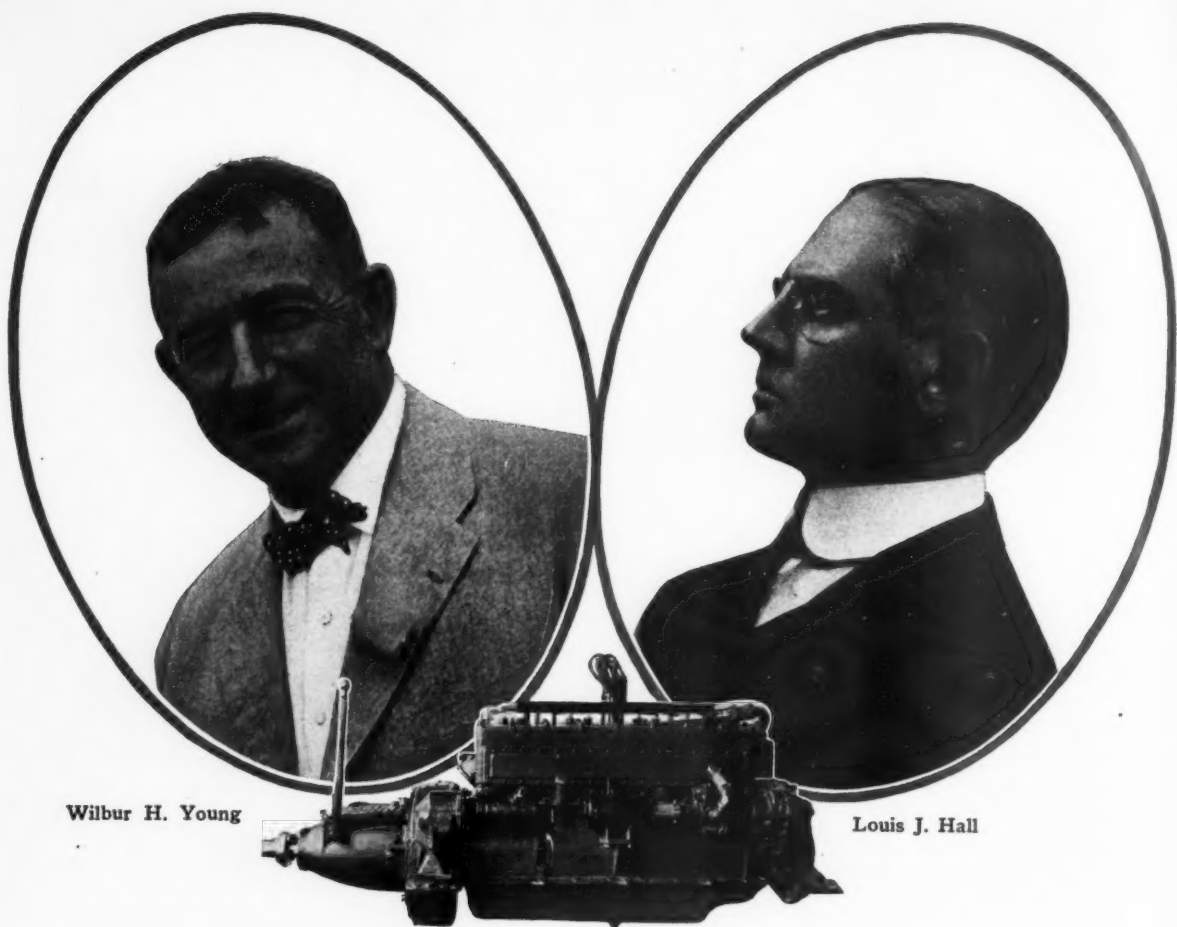
The chine pieces will be made of 2 by 2 1/2-inch yellow pine with rabbeted corner to take the planking. These will be let into the corners of the frames and fastened with 3/4-inch diameter galvanized iron bolts. The fore

(Continued on page 78)

TABLE OF OFFSETS 21 FOOT HYDROPLANE

STATION	A	0	1	2	3	4	5	6	STEP	7	8	9	10	11	12	13
HEIGHTS																
SHEER TO L.W.L.	2-0								STRAIGHT							1-6
" CROWN		0-1 1/2	0-2 1/2	0-3 1/4	0-3 3/4	0-4	0-4	0-4		0-4	0-3 3/4	0-2 3/4	0-2 3/4	0-1 3/4	0-0 3/4	0-0
BASE TO CHINE		2-0 7/8	1-8 1/4	1-5	1-3 1/2		STRAIGHT		1-1 1/2	1-5		STRAIGHT			1-1	
BASE " KEEL		1-6	1-3	1-2 1/2			STRAIGHT		1-0 1/2	1-3		STRAIGHT			1-0	
" " PROP SHAFT						2-1 1/2										0-2
HALF BREADTHS																
DECK		1-2	1-10 1/4	2-3 1/4	2-6	2-7 3/4	2-8 1/4	2-8 3/4		2-8 3/4	2-7 3/4	2-6 1/2	2-3 1/2	1-10 1/4	1-0 1/2	0-1
CHINE		0-10	1-6 3/4	2-0 1/2	2-3 1/2	2-5	2-6 3/4	2-6		2-6	2-3 3/4	2-5	2-2 3/4	1-3 3/4	1-0 1/2	0-1
DIMENSIONS TO OUTSIDE PLANKING - 1/4 IN. & 1/4 IN.																

Complete table of offsets with all figures for the 21-foot hydroplane Cannonball



Wilbur H. Young

Louis J. Hall

# A New Old Combine

**M**ANY of their friends in the boating industry will be interested and pleased to learn that Wilbur H. Young and Louis J. Hall are again associated.

Mr. Young has always been well known as a yachtsman and in the boating industry. He was the first representative of the Van Blerck Motor Company and did much to build up the reputation of Van Blerck Engines. He was President of the Gasoline Engine Equipment Company and established an enviable reputation during the war. He was also Vice-President of the College Point Boat Corporation and built twenty 110-foot submarine chasers for the Government. In 1919 he became associated with Mr. Hall as Vice-President of the Columbian Bronze Corporation and did much to build up their sales until November, 1921, when a physical breakdown made it necessary for him to give up business entirely. He has recently been active as a manufacturer's agent, handling boats and engines, and has also been very active as the first commodore of the Regatta Circuit Riders Club.

Mr. Hall first became prominent in the boating industry in 1908, as President and General Manager of the Columbian Bronze Corporation, manufacturers of the well known Columbian Propellers. Mr. Hall became President of that Corporation when the entire working force consisted of one man and a boy, and in 1920 the plant covered 38,000 square feet of floor space, and the volume of business amounted to nearly a million dollars per year. He withdrew from that company in 1922.

The new company is known as Young and Hall, Incorporated, with offices at 522 Fifth Avenue, New York City.

Through an arrangement with Leon L. Tripp, who has been well known for many years as President of the Albany Boat Corporation, the new company will act as Sales Department for

(Continued on page 82)

# SMALL MOTOR BOATS

## *Their Care, Construction and Equipment*

A Monthly Prize Contest Conducted by Motor Boatmen

*Questions Submitted for the July Prize Contest*

1. Explain and illustrate how, using only the equipment found in the average home shop, to cut the rabbets for stern and keel in the most efficient method.

(Submitted by R. J. S., Council Bluffs, Ia.)

2. Describe an inboard use for the outboard dink motor on a cruiser, such as pumping or charging battery; installation to require as few changes and adjustments as possible.

(Submitted by H. H. P., Los Gatos, Calif.)

## Solving the Carbon Problem

*Some Simple Devices Which Will Reduce Trouble from This Source and An Analysis of the Reasons Back of Its Formation*

*Answers to the Following Question Published in the March Issue*

"Describe and illustrate any unusual precautions or kinks you have devised to minimize the formation of carbon deposits in your marine motor during the 1925 season."

### *Minimizing Carbon Deposits*

(The Prize-Winning Answer)

THE formation of carbon on the piston head and in the combustion chamber of an internal combustion engine cannot be prevented by any means yet devised. Carbonization is the result of incomplete combustion of the fuel and the residue left from the burning of the lubricating oils. In automobile engines, dust drawn in through the carburetor also contributes to its formation. The rapidity of the formation depends upon the efficiency of the piston rings in preventing oil from working up past the piston, and the ability of the carburetor to supply a mixture that will burn clean at all speeds. The carburetor must be of proper size and design for the particular engine upon which it is used and nicely adjusted to supply a mixture that will just prevent back-firing at any speed. A carburetor too large or supplying too rich a mixture will cause rapid carbonization. It is taken for granted that a good grade of lubricating oil and a well compounded fuel is being used.

Idling and improper carburetor adjustments are responsible for half the carbon troubles. Adjust the carburetor for best results with the engine hot. Many marine engines are operated far too cold for efficient results and the richer mixture required for the low operating temperature accelerates carbon deposits. The most efficient temperature is about 180 degrees Fahrenheit, or just below the boiling point of water. Have the carburetor properly adjusted and don't idle the engine more than is necessary, as the first step towards carbon deposit reduction.

There are several carbon removers or retardants on the market and they range from good, bad and indifferent. Some of these compounds are mixed with the fuel in given proportions and

others are introduced directly into the combustion chamber while the engine is hot. Those in the former class will generally give best results in retarding the deposits. In using those in the latter, only such cylinders as are on the beginning of the firing stroke, at which time the piston is at dead top center and both valves closed, should be treated at one time. After the specified time the engine should be run at full speed to blow out the loosened carbon. Pitting and improperly seating valves due to particles of carbon becoming lodged under the valves and the dilution of the crank case oil, are the drawbacks to this method. If you find a good preparation to be mixed with the fuel that will reduce carbon deposits without other effects on the engine, worse than carbon, use it regularly.

Denatured alcohol has been found very effective in removing carbon and its use can be recommended. After three seasons' operation with much idling, a two-cycle engine that had been treated regularly with an ounce of denatured alcohol every two or three weeks was found to contain but very little carbon and the top rings were not stuck. After the alcohol, the crank case was drained and a little oil introduced through the priming cups before starting. The same treatment would hardly be practical for a four-cycle engine unless the crank case was drained each time.

The most successful method of reducing and retarding carbon deposits is to introduce water vapor with the mixture. Water in its natural state will loosen the carbon, but the excess of water will dilute the crank case oil and do more harm otherwise than the carbon will. By vaporizing the water and introducing it as steam, carbon deposits will be reduced and prevented to a noticeable extent and the operation of the engine will be improved. You may also expect a slight saving in fuel. On a hot, foggy night the engine will run

### **Rules for the Prize Contest**

**ANSWERS** to the above questions for the July issue, addressed to the editor of *MoToR BoatinG*, 119 West 40th St., New York, must be (a) in our hands on or before May 25, (b) about 500 words long (c) written on one side of the paper only (d) accompanied by the senders' names and addresses.

The names will be withheld and initials used.

**QUESTIONS** for the next contest must reach us on or before May 10. The editor reserves the right to make such changes and corrections in the accepted answers as he may deem necessary.

The prizes are: For each of the best answers to the question above, any article or articles sold by an advertiser advertising in the current issue of *MoToR BoatinG* of which the advertised price does not exceed \$25, or a credit of \$25 on any article which sells for more than that amount. There are two prizes—one for each question—but a contestant need send in an answer to only one if he does not care to answer both.

For answers we print that do not win a prize we pay space rates.

For each of the questions selected for use in the following month's contest, any article or articles sold by an advertiser advertising in this issue of *MoToR BoatinG* of which the advertised price does not exceed \$5, or a credit of \$5 on any article which sells for more than that amount.

All details connected with the ordering of the prizes selected by the winners must be handled by us. The winners should be particular to specify from which advertisers they desire to have their prizes ordered.



smoother and quieter due to the moisture in the air. The moisture is drawn in through the carburetor, and being finely divided is broken up into its elements by the heat of combustion. The hydrogen and oxygen unite with the fuel mixture, causing more perfect combustion and preventing to a great extent the formation of carbon. There is a little oxygen which combines with the red hot carbon particles, forming water gas with the hydrogen present. The water gas burns, supporting combustion, and the products of the explosion, carbon monoxide and carbon dioxide, pass off through the exhaust.

Chemically, gasoline is several carbon and hydrogen compounds mechanically mixed. Air is almost one-fifth oxygen (O) and four-fifths nitrogen (N). The nitrogen is inert and passes off uncombined. Water ( $H_2O$ ) is hydrogen (H) and oxygen (O) in proportions of one part hydrogen (H) to two of oxygen (O) and requires intense heat with the presence of other elements for its elements to combine with in order that it may be broken up into its elements. Water gas is made by passing steam through an incandescent mass of burning coal, where it is broken up by the intense heat into its elements. The hydrogen (H) and oxygen (O) combine with the carbon (C) of the coal forming water gas ( $2H + CO$ ) and carbon monoxide (C O). Any excess of hydrogen (H) passes off uncombined. This is practically what happens when water vapor is admitted to the red hot carbon in the engine.

A satisfactory water vapor generator can be made from odds and ends of equipment and will be just as efficient as anything you can buy. Best results will be obtained by inserting a piece of quarter-inch annealed tubing in the exhaust pipe close to the engine where the exhaust is hottest. If as much as a foot of tubing can be used straight it will not be necessary to make a coil. Where it is necessary to use a coil to get the benefit of the hot exhaust gases before they strike the cooled portion of the exhaust pipe, make a flat coil and set it horizontally. A large oil cup or a tank with a needle valve to regulate the supply answers very nicely as a water reservoir. Arrange to feed the water at a point farthest from the engine. The pressure of the steam and the suction of the engine will assure the vapor being drawn into the combustion chamber. Where the tubing passes through the exhaust pipe, use tubing connections without cutting the tubing. This device supplies practically superheated steam.

An arrangement of annealed tubing around the hottest part of the exhaust pipe, covered with sheet brass and then asbestos pipe covering, will be very nearly as effective. The simple expedient of a hot air intake device, drawing hot air from around the exhaust pipe with the casing tapped or otherwise arranged to support a large

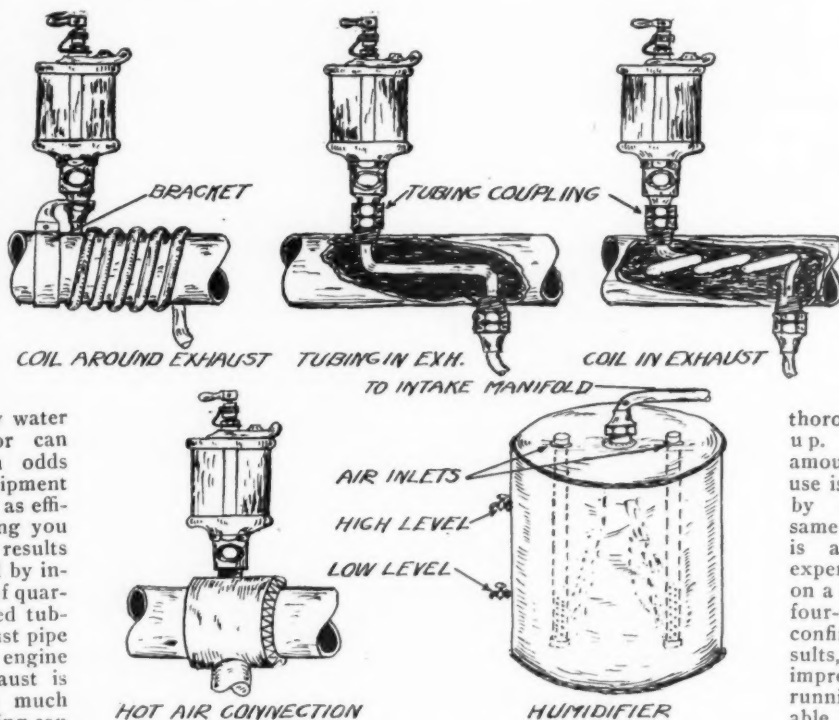
oil cup from which water is allowed to slowly drip onto the hot pipe will give pretty good results.

Still another device that will do much to keep down carbon deposits is composed of an airtight container of about three quarts capacity. At the center of the top is soldered a three-eighth-inch tubing connection. At a distance equal to about half the radius solder a piece of quarter-inch brass pipe each side of the center connection. Drill the lower end of the pipe full of eighth-inch holes and cap. Hook up the center connection to a similar fitting on the intake manifold. To put the device in operation, pour water through the air pipe until the tank is two-thirds full, or until, with the engine running, bubbling grows less. Air must bubble up through the water and the proper level is best determined by experiment. A pet cock at the high and low levels will assure their relocation and indicate when the tank is low. The principle of the device is: as air passes through the water in the tank it is humidified, producing practically the conditions of foggy weather.

Opinions differ as to where the water vapor is best admitted to the intake, however, there seems to be but little difference in the results whether the vapor

is admitted through the carburetor air intake or directly into the intake manifold. With any outfit of this nature, use only fresh water and not too much of it. A few minutes before stopping the engine shut off the water and do not restore it until the engine has

thoroughly warmed up. The proper amount of water to use is best determined by experiment, the same as the carburetor is adjusted. Actual experience and tests on a large, heavy duty four-cycle engine have confirmed these results, and a definite improvement in the running, and a noticeable saving in fuel have resulted when running with water.—W. B. M., Newburgh.



Some suggestions by W. B. M. intended to reduce annoyance from carbon deposits

## An Analysis of the Carbon Problem

IT is a peculiar thing, but ask various boat owners of operators what has been their experience with carbon and how they have overcome any difficulties arising from that source, and the conflicting replies you will receive certainly are surprising. For instance, one owner who has had had continuous trouble with carbon deposits blamed it all on poor fuel, and claimed that his motor has always been maintained in first class mechanical condition, while another, whose motor is hardly two jumps ahead of the scrap heap, never was troubled with carbon formation, and so on, including the man who installed and used every device or compound known to aid in preventing carbon, but whose motor was the most chronic trouble-maker of all. Upon finding conflicting conditions like these, it is natural for one to wonder

(Continued on page 142)

# Canvassing and Finishing the Deck

*Useful Information and Suggestions for Keeping Canvas Deck Coverings in Good Condition and Preventing Cracks*

*Answers to the Following Question Published in the March Issue*

"Explain your method of canvassing decks and finishing the canvas so that it will remain watertight and not crack."

## Canvas in One Piece Is Best

(The Prize-Winning Answer)

WHEN a canvas deck is to be laid, get canvas of good quality, weighing not less than eight ounces for a piece 29 by 36 inches. Canvas is manufactured in various weights, and in widths from 29, 36, 40, up to 120 inches.

It is a good plan to get it all in one piece if possible. However, it may be made up in strips sewed together and applied in one piece. On large boats where this method is impractical, it is laid in strips with each seam tacked, same as on the upper decks of ferry-boats and steamers. If the canvas is to be tacked down, be sure the ceiling boards are thick enough to keep the tacks from showing underneath.

It is a good plan to get a treated water-proof canvas. Treated canvas, having less suction than the untreated canvas, will be easy to paint, and will also require less paint.

To apply the canvas to a new deck, first set all nail heads, then plane the surface smooth free from projections or depressions. If the deck is used for walking, projections and depressions will cause the canvas to wear rapidly at these points. Then paint the entire surface one coat of white lead and oil paint. When dry, fill all nail heads with stiff, pure linseed oil putty. Give the entire surface a second coat of paint, consisting of good mixture of white lead and linseed oil. Lay the canvas over the wet surface, stretch it snugly, and tack the edges with copper tacks  $\frac{3}{4}$  inch on centers. When nailing into a narrow strip, stagger the tacks to prevent splitting the strip. Paint the canvas with thin lead and oil paint and then apply two coats of good deck paint.

All deck fittings, such as wash-boards, companionway slides, skylight and hatch combings, stovepipe irons, ventilators, deck chain pipes, cleats, awning, stanchion flanges, etc., should be set on top of the canvas in a bed of thick white lead, and should be screwed or bolted in place so as to permit easy removal for replacing the canvas at some future time.

At a stationary member, such as a samson post, trunk cabin side, etc., the canvas should be cut and tacked to the deck, snug against the upright surface. The joint should be covered with a strip of wood with a tapered seam against the upright surface. Set the strip in white lead and secure it with screws. The seam should be lightly caulked with cotton, painted and filled with seam compound.—A. G. W., College Point, N. Y.

## Paint Under Canvas Is Good

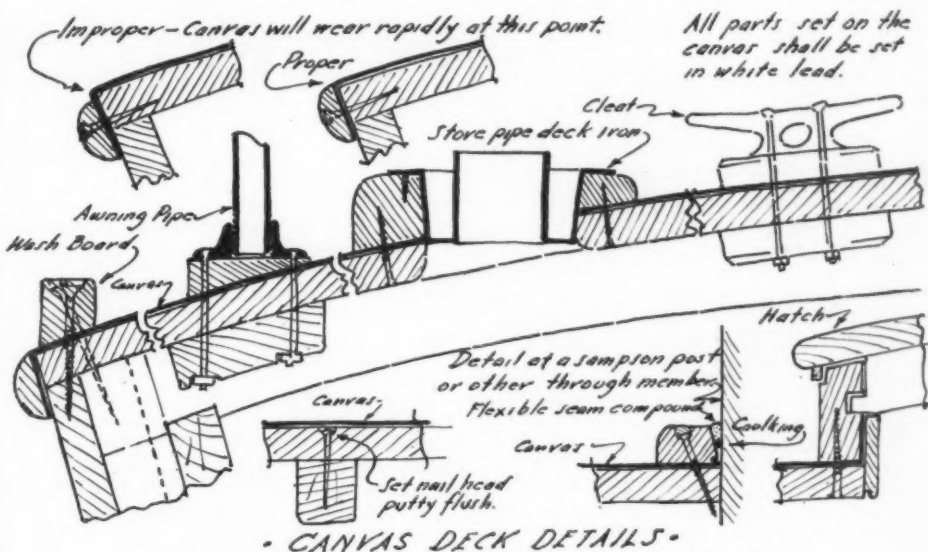
MOST all small boats—by this, we mean boats under fifty feet in length—have a certain amount of deck. Even if it be an open boat, in most cases there is some part of it given to deck space.

A canvas-covered deck usually makes the best job for the amateur. Not only is it simpler, but its cost is much less, and lasts longer without giving it attention than the polished mahogany stripped deck with white seams.

We shall begin by planing and smoothing the wood deck, which in this case is usually made of tongue and groove white pine. This is very necessary, as any slight irregularity on the surface of the wood deck will appear through the canvas covering if not smoothed down, and will tend to wear away only on the high spots.

Assuming that this has been done, we will now apply a coat of thick white lead paint. This will help to stop the deck planks from warping and also help to bind the canvas to the deck, providing the canvas is applied while the paint is still wet.

Ten-ounce canvas should now be laid and stretched



A. G. W. illustrates several useful details in fastening canvas on decks

the long way on the deck, beginning at the center line and running parallel to it, as shown in the sketch.

The center length of canvas must lap at least one inch over the adjoining lengths on each side, and each adjoining piece must lap one inch over the next, and so on. This, of course, must be done before tacking down.

Use one-half or three-quarter-inch copper tacks, depending on the thickness of the wood decking, and space them one-half inch apart. The canvas is to be pulled and stretched over the deck while being tacked down.

All openings in canvas, such as for hatches, skylights, vents, etc., must be cut at least two inches shorter than their actual measurements. One inch less all around. This allows enough canvas to be afterwards clamped down to the deck, coaming, and sides of hatches by means of quarter round wood strips. Trim all

surplus amounts of canvas with a sharp knife or scissors.

After all seams and edges of canvas around openings are tacked down, the outside edges of the deck may then be completed. This should be done last.

To paint the canvas deck covering, apply one priming coat, consisting of linseed oil and turpentine (half and half) with very little white lead. Allow two weeks for drying before applying any more paint. All work must be sheltered from the weather.

A very handsome job can be had by applying hardwood filler on the canvas after the priming coat has dried. Wood filler may be smeared on the canvas with a wide scraper or else thinned a trifle and applied with a brush so as to fill in all the pores. This is to be rubbed down with number one sand paper. By using this method, a smooth canoe finish may be obtained.

If the deck is to be finished with varnish, nothing else but colors ground in japan must be used, of which at least two coats should be applied; otherwise cracking will be a matter of a very short time. As this cracking is not a very serious matter, inasmuch as it only appears on the painted surface, and does not usually reach through to the canvas, it will be well to follow the directions as they are given. Each coat of japan should be given at least four days to dry.

At least three coats of exterior marine varnish or as many more as desired may be applied on top of the japan color, it being rubbed down each time, six days after a new coat is applied, except at the last.

If the deck is to be a finished paint job, the application of wood filler will not be needed. Instead, apply one coat of white lead paint over the prime coat, thinned with linseed oil and turpentine (half and half).

Two or three coats of deck paint of the desired color should then be applied, one week being given in between coats for drying. Before applying each coat of the finished color, the deck should be rubbed with number one sandpaper.—A. J. R., North Bergen, N. J.

### The Marine Glue Method

**T**HE most important factor in canvassing a deck is to prepare carefully the surface to be canvased.

The method here described has been in use on a 30-foot flush deck cruiser for thirteen years, and the canvas has not leaked or cracked.

If the job is a new one, it is best to lay the deck in narrow planks, not over 2 inches wide, of T. & G. pine. The narrow material does not curl up along the edges exposed to the heat of the sun.

All nails should be well countersunk and the entire deck planed to a smooth, even surface.

Over the bare wood spread a generous coating of Jeffery's marine glue No. 7. For this purpose use a whisk broom, whose straws have been cut off about half length. Heat the glue and keep it hot throughout the job. Spread the glue so as to cover the woodwork

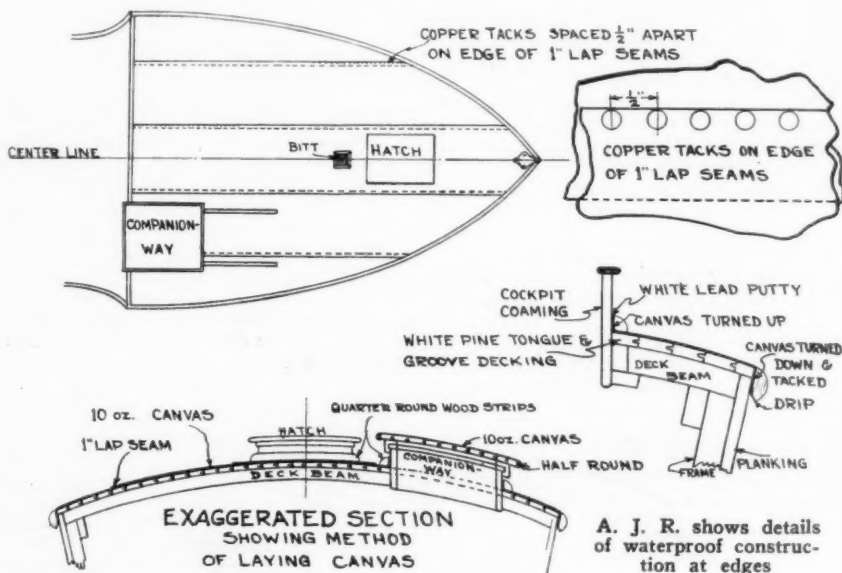
entirely. When covered, the surface will be quite lumpy, but that will be smoothed out in a later operation.

Choose your canvas in widths of about 30 inches, a good weight is 10 oz. double twisted duck. Cut this in lengths about a foot longer than the deck widths to be covered. Spread the canvas out in the sun and you will find that you will be able to stretch it tighter and more easily.

Tack one end of the canvas to a piece of 2 by 3, about three feet long. Begin at the after end of the deck and lay the first strip evenly athwartships. Tack the free end of the canvas over the side, so that the tacks will be covered later by the half-round moulding. When secure, have some one put the canvas on the stretch by pulling it over the opposite side; when tight, tack the

end and cut off the surplus. Now tack the after edge with No. 8 wire tacks, spaced 1 inch apart.

Lay the second strip of canvas in the same manner as the first, overlapping its after edge on the forward edge of the strip, previously laid. Tack the after edge of the second strip, so that the points of the tacks enter the canvas about one-quarter inch from the sel-



vage, and spaced, as before, one inch apart.

When all is down, get two old-fashioned flatirons and have them hot. Go over the entire deck with the irons until the marine glue has sweated through and all the lumps under the canvas have disappeared.

The canvas is now ready for a priming coat. Make this of white lead and boiled linseed oil, with just enough turpentine to cut the lead. Use the priming coat pretty thin, and work it into the canvas when brushing.

The following day the painted surface will show a fuzzy or hairy appearance, due to the fine threads sticking up all over the canvas. Rub this all smooth with No. 0 sandpaper, dust clean, and cover with the second coat of paint, three-fourths white lead, one-fourth zinc, mixed in boiled linseed oil, to which add a little turpentine. Allow the second coat two or three days to dry thoroughly. Sand the surface lightly with No. 0 sandpaper, and apply the third coat of paint, mixed like the second; this should be as near the finished color as possible.

Between the third and fourth or final coat, sand very lightly with No. 00 sandpaper, and apply the finish coat mixed in the same proportions, with the addition of a little drier. If you give this deck a good sanding each spring and apply a good coating of lead and zinc paint, it will last for years.—F. W. E., Oakland, California.

### Applying a Canvas Deck

**A** CANVAS-COVERED deck is at one time the cheapest, easiest to construct, most watertight and simple to repair, but—and there are always buts when there are virtues—the work of construction must be accomplished in a proper manner if the job is to retain the features outlined above.

(Continued on page 154)





Loading a Consolidated playboat on board the steamer Henry R. Mallory for quick delivery to Florida

# PLAY BOATS

## *Sold by Wire*

*Rapid Deliveries Possible  
at Distant Points Because  
of Standardized Construction*

**A**N increasing tendency among prominent yachtsmen in Florida to join in the sport at the famous resorts, prompt many to long for a boat. Boat builders are often called on to make deliveries of stock craft to Florida with such haste as to permit the owner to secure the utmost benefit from his southern trip. An incident proving not merely the confidence felt in Consolidated boats, but also the keen interest being taken by sportsmen in boating, is illustrated in the adjoining photograph.

This particular playboat, one of a large number placed by the Consolidated Shipbuilding Corporation with well-known sportsmen this year, was sent on her way to Key West as the result of an exchange of telegrams between the Consolidated plant and Jesse L. Livermore. The boat was placed on board the steamer Henry R. Mallory within twenty-four hours after the receipt of Mr. Livermore's telegraphed order, every effort being made to rush the boat out so as to give the purchaser as much use as possible during the balance of the present southern season.

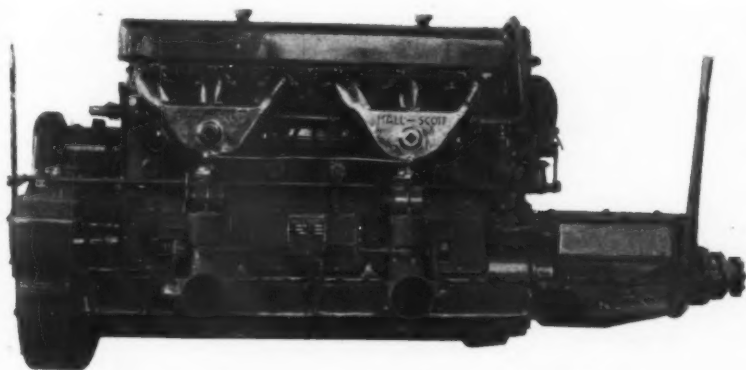


Port and starboard views of the improved LM-6 Hall-Scott 200 h. p. marine engine, showing the manifolding and the grouping of accessories

## *The 1925 Improved*

### HALL-SCOTT-SIX

*High Speed Engine Refinements  
Increase the Power and Efficiency  
of This Popular Machine*



**C**ONTINUAL improvement is being made in engines by builders. The newest six-cylinder Hall-Scott marine engine of 200 h.p. has also been improved in many ways, so that the latest model can be said to be even better than the earlier types of previous years. The intake manifolds have a new design, jacketed with hot water. New carbureters specially designed by Colonel Hall and Harry Miller are fitted, which permit wonderful control over the engine speed. On a bore and stroke of 5 to 7 inches, these machines develop 200 h.p. at 1,700 r.p.m., while the weight has been held down to 1,500 pounds. The camshaft and rocker arms are completely enclosed, and a pump of greater capacity is now supplied. The proportions of the crankshaft have also been increased, which eliminate entirely any tendency towards vibration.

# The Starboard Watch

*Some Comments on the Winter's Racing Activities and Other Pertinent Matter for the Improvement of the Sport of Motor Boating*

By WILBUR H. YOUNG

A LOT of us who are mixed up in motor boat racing may be inclined to think that it is all there is to the game. Racing is a splendid crucible for the development of hulls, engines, ideas, accessories, and inventions and its importance cannot be overestimated, but the real backbone of motor boating is the thousands of family cruisers moored in units of from one to a hundred in the various harbors, bays, lakes and rivers throughout the United States and Canada. Racing is fun, and is essential to the general development, but cruising represents the real meaning of motor boating and the real meat of the motor boat industry. Racing alone would not support the industry, and therefore could not be indulged in if the rest of boating were eliminated.

\* \* \*

Regarding the interest aroused in the general public by motor boat racing, it was curious to hear the reaction of some of those watching the races at one of the recent race meets.

One gentleman who had gone to the water front to watch the races, asked me afterward: "What was it all about? I saw one boat much faster than all the rest run around the course four or five times, and then some other boats seemed to be running around, too, but some of them stopped and after a while started again, but we could not determine just what was going on, and no one who was in the large crowd where I was seemed to know any more than I did, and when there seemed to be nothing more doing, we all went home somewhat bewildered."

All this, in spite of the fact that the races had been announced in the newspapers, giving the list of entries, drivers, ratings, etc., and programs were printed and distributed.

It seems from the above that it is very essential that a lot of publicity be given to the races ahead of time, so that everybody will be informed, the same as they have been in Detroit.

\* \* \*

Imagine how motor boating would grow almost overnight if the people in other parts of the country realized its value and advantages the way the commercial population of Florida does! That's a thought on which a whole article could be written without telling the entire tale at that.

\* \* \*

I'll take back all I said in a previous issue of this publication about automobile racing drivers as pilots of racing motor boats. You don't remember it, of course, but I said I had vague doubts that the automobile fellows would make good motor boat racers, basing my deductions on previous efforts of a few of the automobile racing clan. The clever seamanship and, above all, the splendid sportsmanship of the automobile drivers who piloted Carl Fisher's Biscayne Babies at Miami Beach,

would convince anybody that the amateur pilot could learn a lot from the fellows who make racing their livelihood. Can you imagine a motor boat regatta without a single protest? And yet, that is exactly what was staged at Miami Beach. Such a revolutionary turn of events should receive the most ardent study of motor boating solons in other parts of the country. The protest has become the bane of motor boat racing. In fact, this has been true since the very earliest days of the sport. All hail the entrance of automobile racing drivers into motor boating contests. An interesting fact connected with the racing of the Biscayne Babies is that the only opportunity these drivers had to become acquainted with their boats was the day before the races, when each one was given five gallons of gas and told to go out and become acquainted with his boat, and when that five gallons were gone they had to quit.

\* \* \*

## On Galley Arrangements

IF I dared make a criticism of the new boats for 1925, I should say that most of them are deficient in the arrangement details, and location of their galleys. It might be a good idea for some of the boat designers and manufacturers to ask their wives' advice on where to place the galley on a cruiser, what to equip it with, and how to arrange its various features. Such advice would be particularly valuable if the wife had been on a few cruises and knew the merits and deficiencies of the cook's facilities on the average boat. And think! What a fine (?) time the naval architect or boat builder would have convincing wife that a bay window would not fit in the general scheme of things!

Why wouldn't it be a good idea for the motor boat industry or far-sighted individuals to present some trophies for such accomplishments as the longest cruise of the year, the most notable motor boat achievement outside of racing, and other constructive things which spell progress for industry and sport alike? How about a committee to hold a contest every year to determine the finest boat of the year from the standpoint of lines and general appearance? I, for one, would not want to serve on that committee, membership in which could be termed a hazardous vocation. What I am getting at is that real achievements in the most important phases of motor boating go totally unrewarded

and unnoticed by the very people to whom it means the most—the manufacturers of boats and engines, as a whole, rather than those particularly interested in each exploit. The handsome trophy donated by Commodore William E. Scripps of Detroit and raced for each year on the Great Lakes accomplishes a great deal in this direction, but there should be more of them held in other localities.

\* \* \*

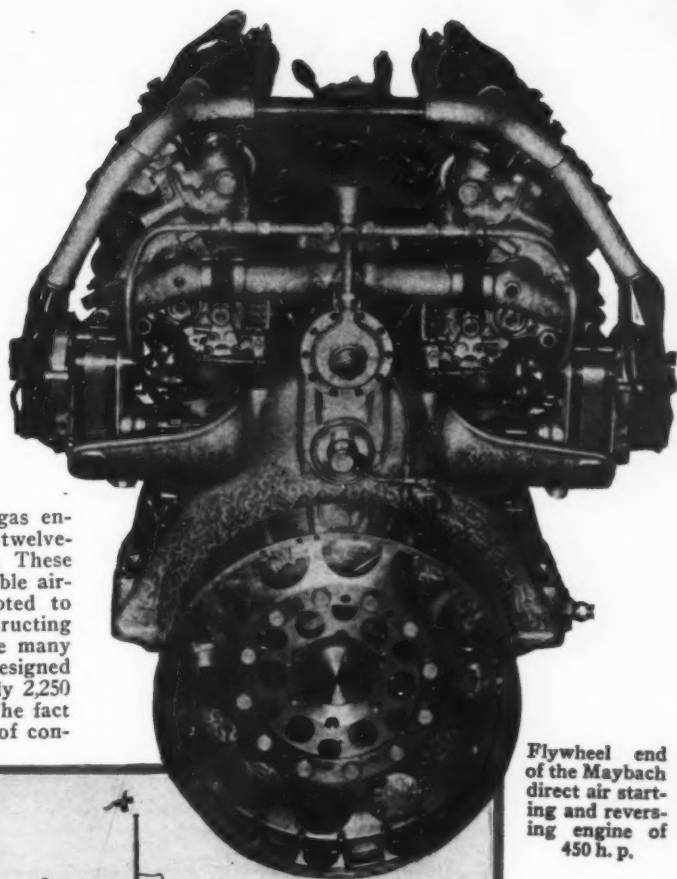
This winter's racing in Florida has shown a tremendous increase in the activities on the West Coast. At Tampa the meet was held late in February; early in March the Sarasota Races were held and St. Petersburg ran off a spirited series on March 28. In all of these races boats from the Davis Island Yacht Club of Tampa, the St. Petersburg Power Boat Association, Sarasota Yacht Club and the Safety Harbor Yacht Club participated. A one-design, 26-foot runabout class, locally built, was entered in all these races and furnished thrills for the crowds which the events attracted. The enthusiasm developed amongst the yachtsmen and the general public in those localities augurs well for a spirited season next year. Great credit is due Commodore C. F. Irsch of the Davis Island Yacht Club, Commodore W. G. Selby

(Continued on page 68)

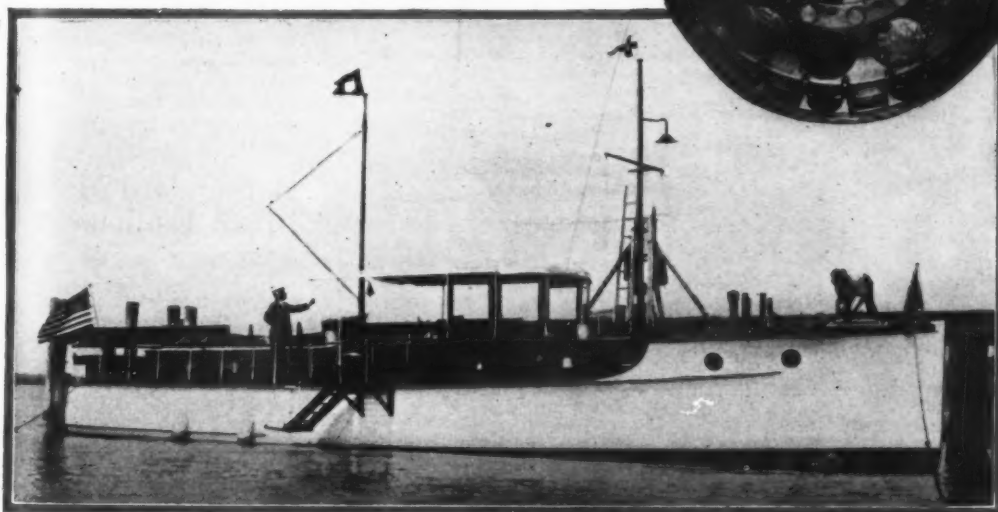
# A Reversible Gas Engine

*Foreign Engineers Design and  
Build an Engine of High  
Power With Air Starting and  
Direct Reversing*

**A**N unusual development in high-powered gas engines is the recent completion of some twelve-cylinder marine engines of 450 h.p. a piece. These machines, originally designed to propel the dirigible airship ZR3 across the Atlantic, have been adapted to marine work, and the experience gained in constructing them, has permitted the engineers to incorporate many novel and unusual features in these machines. Designed to run at about 1,400 revolutions, they weigh only 2,250 pounds, while they still develop a full 450 h.p. The fact that these engines are directly reversible permits of con-



Flywheel end of the Maybach direct air starting and reversing engine of 450 h. p.



One of the first boats to be fitted with Maybach engines. The 57-foot cruiser Dauntless, owned by James Newcomb, has two 70 h.p. engines

The smaller 70 h. p. engine of six cylinders fitted with a built-in reduction gear



siderable reduction in the weight, because of the absence of a reverse gear. They are fitted with a high-pressure air-compressor, and are started by air and can be reversed from full speed ahead to full speed astern in a matter of only a relatively few seconds. They burn the regular grades of gasoline, and the consumption will run about twenty-two gallons per hour.

Another machine of smaller size, built in the same plant, is the 70 h.p. six-cylinder unit. This is arranged to drive a propeller shaft at a greatly reduced rate by means of an enclosed reduction gear.



# Yard and Shop

Notes of Interest to Both Owner and Manufacturer

## Elgin Unit Control

ONE of the most interesting fittings which has been brought out for motor boat control, is the unit control board, being made by the Elgin National Watch Company of Chicago. This instrument board contains in one attractive panel all of the various instruments necessary to give a complete record of the engine's performance at all times. There is an ammeter, reading from zero to twenty, charge and discharge, an oil pressure gauge, a temperature recording device, and an air-pressure gauge. In addition to this there is a tachometer so graduated as to accommodate any desired engine speed. The whole unit is indirectly lighted so that all instruments may be plainly seen at night without any additional lamps. Another unique point is a small opening at the back of the board, which lights the foot-board, so that the starting motor button can be readily located. Practically all of the yacht builders specializing in high-class work are using this unit arrangement on their better jobs.

The old style instrument board with all the fittings stuck on has long since been abandoned by the up-to-date builder.

DETROIT, SOMEWHERE IN FEBRUARY

To the Skipper: Port Elco.

New York or thereabouts.

Greetings Kind Sir:

Behold, a humble follower of the wet briny, has an all consuming passion (caused by envy and jealousy of the able to pay you now gang) to find out how he can get, acquire, obtain, and own, that ere sweet lil ole 26 feet of sassyness you advertise in this mths. copy of MoToR Boating. Fair Sir: she's a wote, darb, beaut oooh you know wat I mean, she's the cat's wrist watch. But (awful word) this humble so'licitor of dope works for less than Sinquanta pesos per wotsis & cant walk up & plunk down 1950 large round iron pieces of eight. In fac' except I commit arson, mayhem, piracy on the high, low & intermediate seas, I never could plunk 'em with a resounding klink' nossir! So I am led to inquire about your dollar dozen & get it when I've got it plan. I'm determined that sooner or later that Elco 26 on her counter becomes only an alias, nom-de-plume, etc., & she becomes my better three 'As under the name of Sea going Susan, & she writes that same on Kid Neptunes green writing paper. Relieve the suspense on you who must be obeyed and pass on to me the score sheet, showing how many goals I've gotta be knocked for before I can take her forth (of fifth s'no matter) & hunt a coconut & roll among it. I'm consumed with an all enduring envy of these lucky birds, who have 1950 thingamys & dont need to try the dollar down & dollar when you ketch me plan. If you have a plan whereby I can own her personally by 1925 lead us to it, we will yet on the

Sea going Susan.

Gives to her me regards, the sassy lil devil & tell her I'll propose soonis I can.

Yours for the sport till Mr. Gabriel calls mess on his bugle.



A Milwaukee Evinrude dealer displays a boat and outboard engine, mounted on a delivery truck, which was used to run the outfit around the city where it attracted much attention

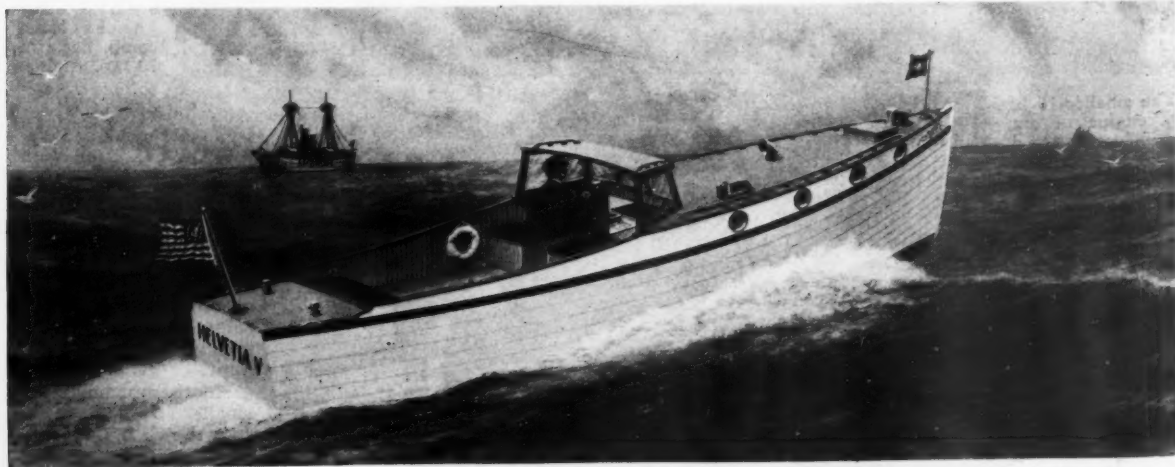
## New Starter for the Universal Flexifour

THE new type electric starter adopted by the Universal Motor Company for its Universal Flexifour 15 h.p. motor is the Bosch auto type 6-volt, 2-unit starting and lighting system. It consists of the 6-volt starting motor with Bendix drive, generator, distributor and coil; starting switch, ammeter, ignition switch, etc. The manufacturer claims that the new type of starter is a decided improvement over the old type single unit 12-volt system formerly used. The former 12-volt single unit system could be used only on model C-2 and C-5, while the new 6-volt two-unit system may be mounted on all of the manufacturer's models. The new starting and lighting system can also be furnished at a lower price than the old system.

## A Standard Motor Boat Equipment

SEVERAL of the most important manufacturers of motor boats have placed large orders recently with the Pyrene Manufacturing Company for Pyrene hand fire extinguishers.

(Continued on page 66)



Helvetia V, one of the new 34-foot Banfield twin screw high speed cruisers, which was built for Columbus O'D. Iselin, a famous yachtsman of New Rochelle. The boat was completed under the supervision of Tams & King, and a pair of 70 h. p. four-cylinder Kermath engines were installed.



## For all types of water-craft—Valspar

Old Town Canoes are Valsparred, of course; for the Old Town Canoe Company knows the value of good looks and proper protection for their craft.

(Photo by courtesy of Old Town Canoe Company.)

WHETHER it's a canoe or a yacht, the appearance of a boat plays an important part in your satisfaction and enjoyment on the water. You naturally want your boat to look well, and to *keep* looking well — which means you should use the best varnish you can buy.

Perhaps the experience of the *Old Town Canoe Company*, manufacturers of the famous Canoe that bears their name, will be of interest in this connection. They write:

"After testing a great many varnishes we have finally decided that we can get nothing better than Valspar.

"Varnish, to meet our requirements, must have the utmost durability and brilliancy and must be 100% waterproof. Valspar Varnish meets all these tests and there is furthermore the positive assurance that it "won't turn white."

Valspar is the ideal varnish for every form of water-craft. From speed boats like *Miss America I, II and III* to giants like the *Leviathan*, from championship sailing canoes like the *Maris* to every one of the *International Six Meter Boats*, Valspar was the unanimous choice.

What more need be said!



VALENTINE'S  
**VALSPAR**  
The Varnish That Won't Turn White

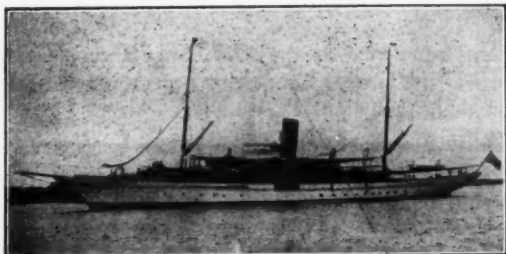
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 BROKERAGE, NEW YODK

# COX & STEVENS

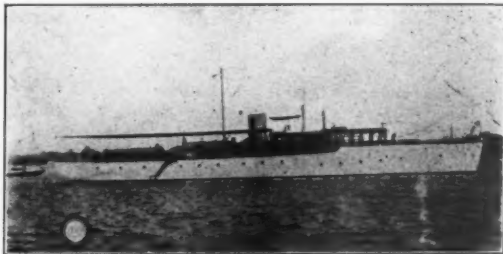
 Telephone:  
 WHITEHALL 2700

**NAVAL ARCHITECTS—MARINE INSURANCE—YACHT BROKERS**
**25 BROADWAY, CUNARD BUILDING (Morris Street Entrance), NEW YORK**

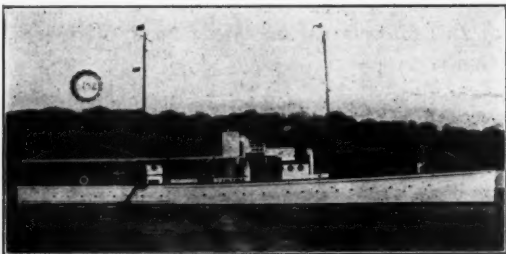
On this page are shown a few representative yachts selected from our large lists. Should none appeal kindly acquaint us with your requirements. Full information regarding costs to build, purchase or charter yachts of all types gladly furnished.



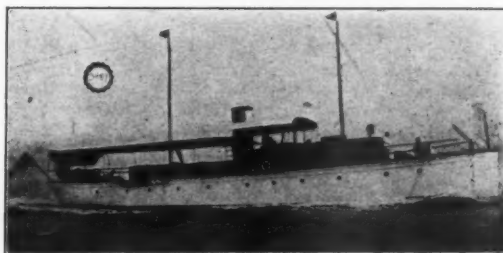
No. 341—For Sale or Charter—Large, seagoing steam yacht. Palatial accommodation. Unusual opportunity. Several similar larger and smaller available craft. Cox & Stevens, 25 Broadway, New York.



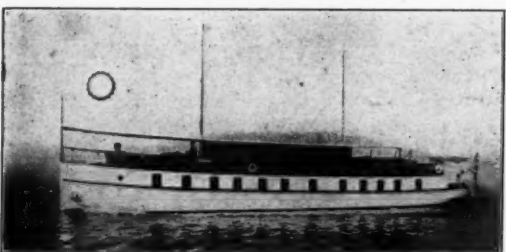
No. 885—FOR SALE OR CHARTER—Fast, steel, twin screw, cruising power yacht, approximately 120 ft. in length. Speed up to 16-17 miles; Winton Motors. Unusually large accommodation, including deck dining saloon, three staterooms, bath and two toilets. Handsomely finished and furnished. COX & STEVENS, 25 Broadway, New York.



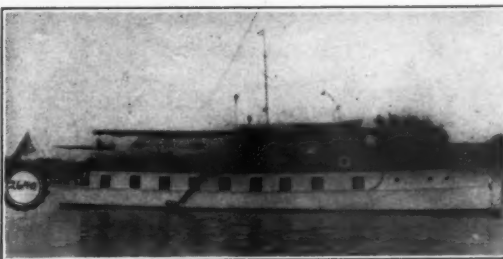
No. 2632—Sacrifice—(Might Charter)—Fast, seagoing 127 ft. twin screw cruising motor yacht. Completed Fall 1919. Speed about 23 miles. Very heavily constructed. Dining saloon on deck; 3 double staterooms, 2 bath and toilet rooms. Splendid deck space; deck shelter aft of amidships. An unusual craft, embodying seaworthiness, speed, attractive appearance and comfort. Cox & Stevens 25 Broadway, New York.



No. 3489—FOR SALE—Particularly attractive 90 ft. twin screw cruising motor yacht. Built 1917. Speed 13-14 miles; Winton Motors. Deck dining saloon, three staterooms, bath and two toilets. Handsome finished and furnished. COX & STEVENS, 25 Broadway, New York.



No. 3000—FOR SALE OR CHARTER—Commodious twin screw, motor houseboat; 100 x 18 x 3.6 ft. Speed 10-11 miles; Winton Motors. Splendid accommodation includes dining saloon and lounge room on deck; six staterooms (including five double) and three bathrooms below forward. All conveniences. COX & STEVENS 25 BROADWAY, NEW YORK.



No. 2640—FOR SALE OR CHARTER—Modern twin-screw 80-ft. Mathis motor houseboat. Speed up to 12 miles; two 6-cylinder Standard motors. Deck dining saloon; below forward two double and two single staterooms, lobby containing transom, two baths and toilet room. Excellent condition. Price and further particulars from Cox & Stevens, 25 Broadway, New York.



No. 4460—For Sale—Modern fast, 65 ft. twin-screw cruiser. Speed up to 18 miles; two 6 cyl. 150 H.P. Speedway motors. Dining saloon in deckhouse; two staterooms, two toilet rooms, etc. Price attractive. Cox & Stevens, 25 Broadway New York.



No. 2830—For Sale—Attractive 50 ft. bridge deck cruiser in excellent condition. Two cabins, large afterdeck. Equipped with 50 H.P. heavy duty motor. Speed 11 miles. In commission. Cox & Stevens, 25 Broadway, New York.



No. 4393—For Sale—High speed 50 ft. twin-screw cruiser. Speed up to 30 miles; two 6 cyl. 200 H.P. Sterling motors. Hull double planked mahogany. Stateroom, saloon, toilet room, etc. Price reasonable. Cox & Stevens, 25 Broadway, New York.

**PLANS, PHOTOGRAPHS AND PRICES ON REQUEST**

NAVAL ARCHITECTS  
ENGINEERS  
YACHT BROKERS  
MARINE INSURANCE

## HENRY J. GIELOW, Inc.

25 West 43rd STREET, NEW YORK

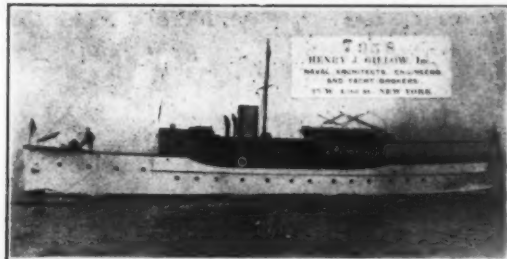
Tel.: Murray Hill 9134  
Cable Address:  
Crogie, New York  
A.B.C. Code

Plans and specifications for new yachts of any size or type should be prepared now to assure delivery for next year. Have plans of new yachts, all types, on file now.

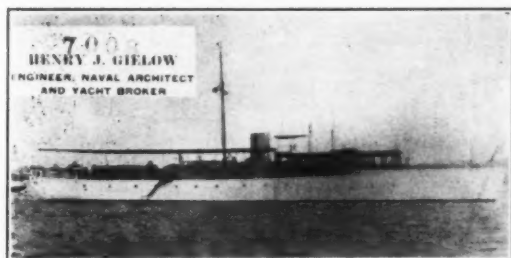
We have a most complete and up-to-date list of steam and motor yachts of all sizes, sail, auxiliary, and houseboats, on file in our office, kept constantly up-to-date by thorough and comprehensive canvass of the entire yachting field from time to time. We are in a position to submit full information on any type of boat upon request.



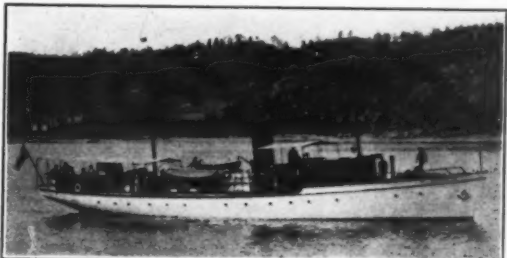
No. 7034—For Sale—High-class, 90-foot twin screw motor yacht (never in war service). Built our design, always well owned and now perfect condition throughout. Two 6 cyl. Winton motors, all Winton auxiliary machinery and all furnishings renewed 1922. Twenty-foot deck house contains dining saloon. Has 2 double, one single stateroom. Speed 13-16 miles. Able sea boat. Henry J. Gielow, Inc., 25 W. 43d St.



No. 7958—For Sale—Modern Diesel motor yacht, built 1923. 98x15x5'6", 170 H.P. Bessemer Atlas engine, speed 12-14. One continuous teak deck house has living room and dining saloon. Has two double, one single stateroom, bath, sleeps 8-12. All fine condition and complete. Henry J. Gielow, Inc., 25 W. 43d St.



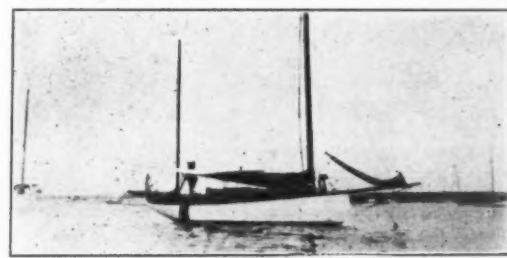
No. 7008—For Sale—Fast 118-foot, twin-screw steel motor yacht with two six cyl. Winton motors, gives speed 14-16 miles. Deck galley and dining saloon. Three double staterooms, two baths. Handsomely furnished and most complete. Thoroughly renovated throughout 1920. Henry J. Gielow, Inc., 25 W. 43d St.



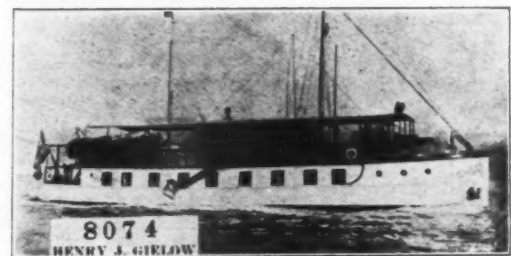
No. 9312—For Summer Charter—Located Quebec. Handsome, able, seagoing twin-screw motor yacht. 106x16x6'6". Ideal craft for extended cruising. Two 6 cyl. Winton motors, speed 12 knots. Deck dining saloon, 1 double, 5 single staterooms. All deck trim of teak. Two independent electric plants. Completely furnished. Henry J. Gielow, Inc., 25 W. 43d St.



No. 7861—For Sale—Handsome fast, able, twin-screw motor yacht, 138x16'4"x9", built of steel, has two 265 H.P. Speedway motors, Kelvinator ice machine and complete every detail. Social hall and dining saloon on deck. Two double, three single staterooms, two baths. Speed 15-17 knots. Just returned from winter cruise West Indies. Finest condition, fully equipped. Henry J. Gielow, Inc., 25 W. 43d St.



No. 8524—For Sale—Roomiest 35-foot shoal draught C. B. auxiliary yawl, large cabin, 6' 2" headroom, 12 H.P. Sterling, speed 8 miles. Sails 1922. Complete inventory, whole outfit fine condition. Well built. Electric lights. Price reasonable. Henry J. Gielow, Inc., 25 West 43d St.



No. 8074—For Sale—Charter. Now in Florida. One of most desirable houseboats available. 77'x17'6"x3', twin 6 cyl. Standard motors, all first-class. Handsomely finished and furnished. Two double, one single stateroom and saloon, two baths, large deck house. Has excellent crew. Economical to run. Hot water heated, completely found. Henry J. Gielow, Inc., 25 West 43d St.



No. 9692—For Sale—Very attractive trunk cabin cruiser, extra fine construction and finish. 70 H.P. motor gives speed 11-13 miles. Steers and controls inside cabin. Sleeps 4 and has roomy cockpit, with top and curtains. Mahogany trim inside and out, even to decks and cabin floors. Very complete in fittings. Opportunity, as owner's health prevents using boat. Fine condition. Henry J. Gielow, Inc., 25 W. 43d St.



# TAMS & KING

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NAVAL ARCHITECTS

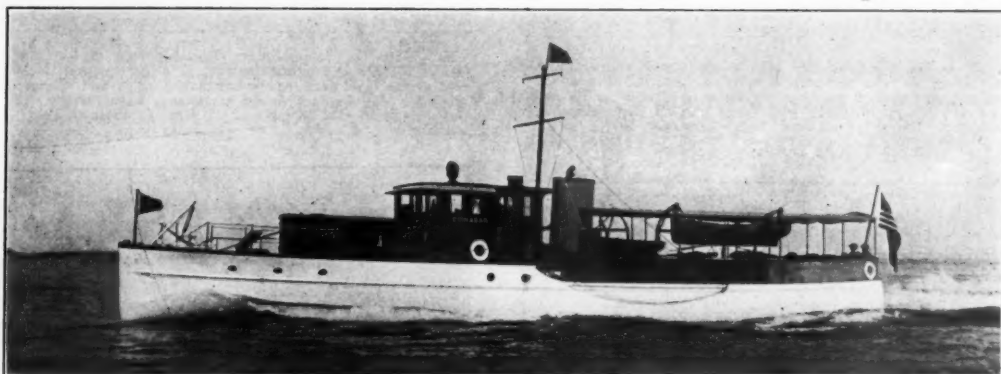
—AND—

YACHT BROKERS

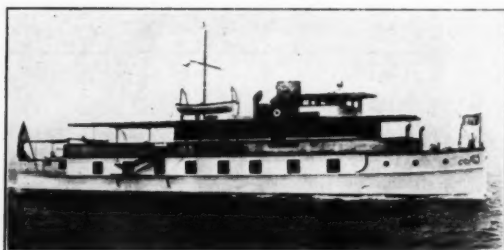
Tel. Murray Hill 6656

250 Park Ave.,  
New York City

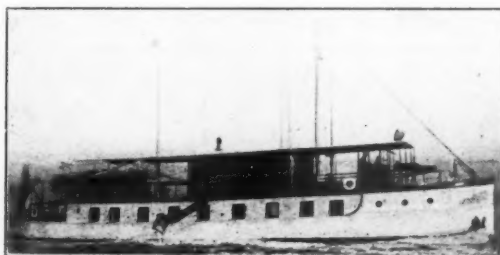
OFFER ALL OF THE DESIRABLE YACHTS AVAILABLE FOR SALE AND CHARTER, SOME OF WHICH ARE ILLUSTRATED BELOW



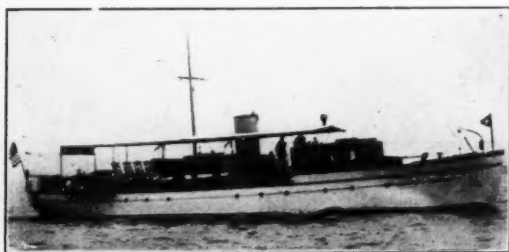
No. 7973. For sale. This attractive twin screw Motor Yacht, one of the smartest and roomiest boats of her size. In perfect condition, two double staterooms, bathroom and large dining saloon. Inspectable in New York.



No. 1965. For sale or charter—this attractive twin screw houseboat, 100 x 22 x 3' draft. Speed 10 miles, accommodations include 5 staterooms, 3 baths, dining saloon and large deck saloon and crew's quarters, attractively furnished and in first class condition.



No. 1912. For sale or charter—this commodious 77' houseboat, speed 10 miles. Has 4 staterooms, 2 baths, dining saloon and deck sitting room. Completely equipped and in splendid shape throughout.



No. 8750. For sale or charter—this 83 foot motor yacht. Twin screw motors give speed of 12 knots. Has two double staterooms, main saloon and large deck dining saloon. Equipment and furnishing very complete.



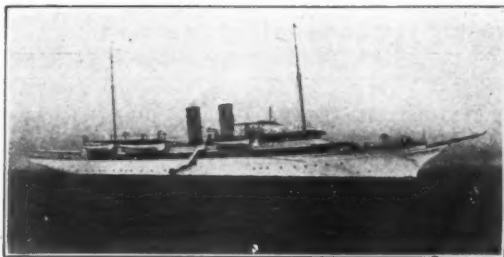
No. 7541. For sale at a bargain. This attractive 30' 6" express cruiser. Built in 1923. Powered with Stearns motor. This boat formerly held at \$5,000, now available at \$3,500, rock bottom price.



**R. M. HADDOCK****NAVAL ARCHITECT****MARINE INSURANCE****YACHT BROKER**

50 EAST 42ND STREET, NEW YORK CITY

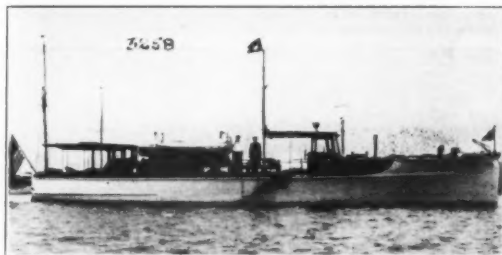
TELEPHONE, VANDERBILT 10499



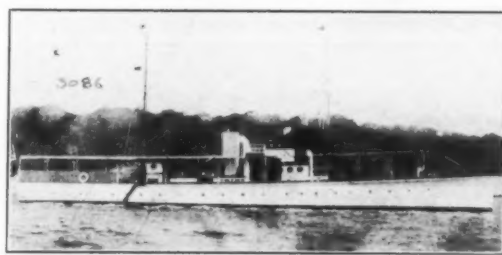
No. 130—FOR SALE—Large seagoing steam yacht, 263' x 29' x 16' draft. Palatial accommodations. Owner will sacrifice for immediate sale. For further particulars, apply to R. M. HADDOCK, Naval Architect and Yacht Broker, 50 East 42nd Street, New York City.



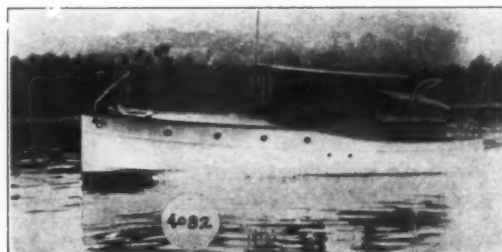
No. 3017—FOR SALE—Diesel Motor Yacht, 77' x 14' x 6' draft—cruising radius 1600 miles at 10 knots. Two double staterooms and saloon. Deckhouse. Can be operated at one-half the cost of gas driven vessel same size. All motor controls on the bridge. For further particulars apply to R. M. HADDOCK, 50 East 42nd Street, New York City.



No. 3258—FOR SALE—Twin screw motor yacht, 70' x 14' x 3' 6" draft. New 1924. Two Speedway motors, speed up to 18 M. P. H. Accommodations consist of two double staterooms, bath room, large dining saloon forward; one of the finest yachts of her type available. For further particulars, apply R. M. HADDOCK, Naval Architect and Yacht Broker, 50 East 42nd Street, New York City.



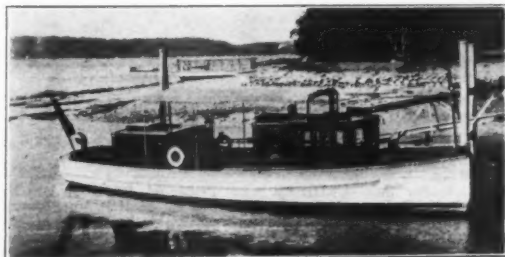
No. 3086—FOR SALE—Fast twin screw flush deck motor yacht, 127' x 18' x 6' draft. Standard motors speed up to 23 M. P. H. Two double and one single stateroom. Two baths, etc. Price attractive. For further particulars apply to R. M. HADDOCK, Naval Architect and Yacht Broker, 50 East 42nd Street, New York City.



No. 4082—FOR SALE—Bridge deck cruiser, 38' x 10' x 3' draft. Speed up to 13 M. P. H. Sleep 4-6 persons. Perfect condition. Price reasonable. For further particulars apply R. M. HADDOCK, Naval Architect and Yacht Broker, 50 East 42nd Street, New York City.



No. 313—FOR SALE—One of the most attractive bridge deck motor yachts now available. Two Sterling motors speed up to 25 M. P. H. Accommodations consist of double stateroom, large saloon fitted with Pullman berths, toilet and bath. Electrical equipment more complete than any yacht of her size. Exceptional amount of deck space. Suggest quick action if interested. Boat can be seen at New York City. For further particulars apply R. M. HADDOCK, 50 East 42nd Street, New York City.



No. 4251—FOR SALE—Bridge deck cruiser, 40' x 9' 6" x 3' 3" draft. Speedway motor speed up to 12 M. P. H. Sleep four persons. Price attractive. For further particulars apply R. M. HADDOCK, Naval Architect and Yacht Broker, 50 East 42nd Street, New York City.

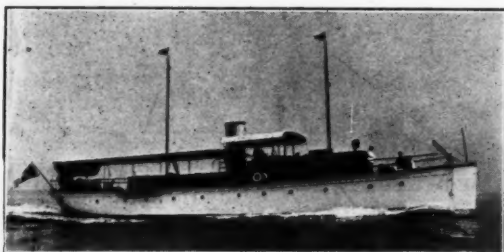


No. 4141—FOR SALE—Bridge deck cruiser designed and built by Herreshoff 1915. Sleeps 6 persons, 32' x 8' 6" x 3' draft. Speed up to 10 M. P. H. For further particulars apply R. M. HADDOCK, Naval Architect and Yacht Broker, 50 East 42nd Street, New York City.

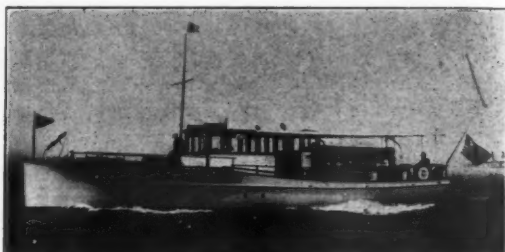
# THOMAS S. HANSON Personal Service BROKERAGE

Formerly General Manager of The Elco Works, of Bayonne, N. J.

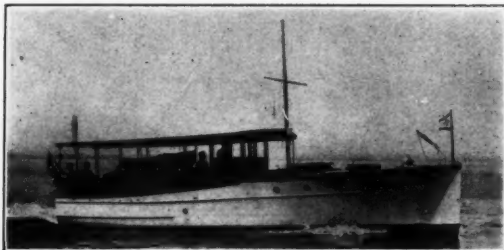
I have a carefully selected list of all sizes and types of Boats and Yachts. I will endeavor to submit to you the boats best adapted to your needs, which will give you the pleasure you have a right to expect.



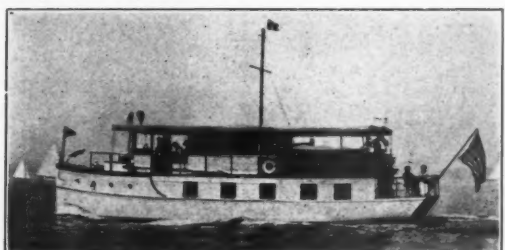
No. 1—For Sale—Most attractive FLUSH DECK GASOLINE CRUISER. Length 91 ft. Beam 16 ft. Draft 5 ft. Twin Screws. Two 6 cylinder Winton engines. Speed 14 miles. Delightful accommodations: Two double and one single Master's State-rooms; Bathroom. Dining Saloon on deck.



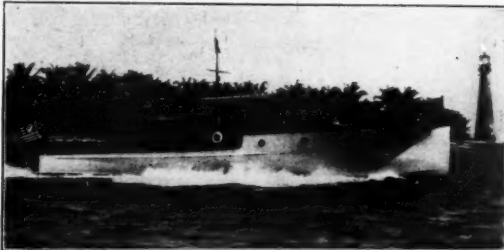
No. 2—For Sale—ELCO TWIN SCREW DECK HOUSE CRUISER. One of these splendid boats of the Latest Model. Length 56 ft. New 1924. Has the three State-rooms. Also have one of the earlier 54 ft. Models. Description of boats, condition and price, on request.



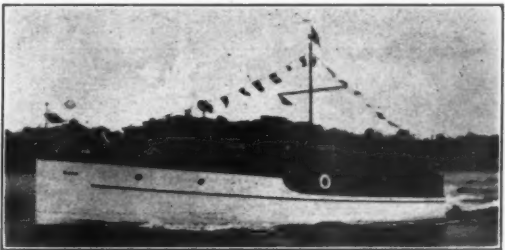
No. 3—For Sale—ELCO CRUISERS, 45-FOOT; ALL MODELS. These boats are noted for their success in embracing comfortable seaworthiness, with the best cruising arrangements, in a one-man boat. Description of the boats available, their condition and prices, on request.



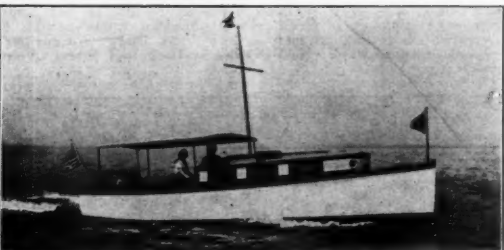
No. 4—For Sale—52-FOOT MATHIS CRUISING HOUSE-BOATS. This excellent Model, which represents all that is best in a Power Houseboat, of medium size.



No. 5—For Sale—TWIN SCREW GREAT LAKES CRUISER. Length 54 ft. Beam 11 ft. Two 6 cylinder Sterling engines. Speed 25 miles. Good cruising accommodations. Excellent condition. Price most favorable.



No. 6—For Sale—CONSOLIDATED BRIDGE DECK CRUISER. Length 52 ft. Beam 11 ft. 150 H.P. Speedway engine. Very desirable boat where seaworthiness and unusual speed are desired, in combination with good cruising accommodations. Speed 16 miles.



No. 7—For Sale—ELCO CRUISETTES, 33-FOOT and 34-FOOT MODELS. Selected number of these famous Cruisers which have proved so successful. Description of the boats, their condition and prices, on request.



No. 8—For Sale—CRUISER with Protected BRIDGE DECK. Length 45 ft. Beam 11 ft. Draft 2 ft. 10 in. 65 H.P. Van Blerck Engine. Cruising Speed 11 miles. Comfortable boat, good design and arrangements, in an attractive condition.

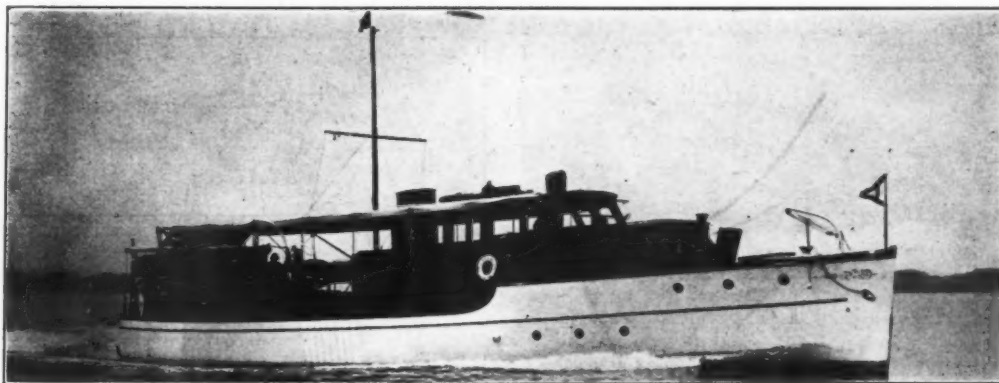
# THOMAS S. HANSON Personal Service BROKERAGE

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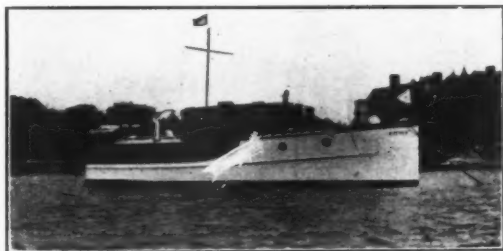
Telephone Murray Hill 8676

NEW YORK CITY

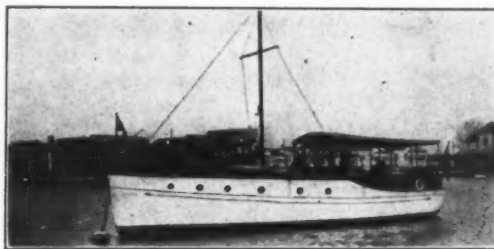
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8415**RIGG'S YACHT AGENCY**  
350 Madison Ave. (at 45th St.) NEW YORKCable Address  
"Rigging"

**FOR SALE OR CHARTER—No. 725.**—One of the finest of the popular Consolidated "North and South" cruisers. Ideal for year round cruising and exceptionally well ventilated for Summer weather. The dimensions are 78' o.a. x 13' beam and 3' 3" draft. Two Speedway motors give a speed of 20 m.p.h. Mechanical equipment includes complete independent lighting and pumping system, also automatic refrigerating plant. Most luxurious owners' quarters finished entirely in panelled mahogany, includes comfortable accommodations for six, three staterooms, two shower baths, large wardrobes and lockers. Location, New York. Price, plan and particulars from RIGG'S YACHT AGENCY, 350 Madison Avenue, New York City.



**FOR SALE—No. 1260.**—Modern type fast cruiser with two separate cabins and enclosed bridge deck. Dimensions 45' x 10' 4" x 2' 9" draft. Built by the Rochester Boat Works in 1920. Sterling Motor 125 HP with electric starter. Accommodations include stateroom with two upper and two lower berths, also large saloon. Two toilets and separate quarters for a man. Independent Homelite electric lighting system, also numerous modern appliances including electric toaster, electric irons, electric pumps, vacuum cleaner, etc. Most complete equipment including three anchors, also two mooring anchors, linen, silver, bedding, blankets, cooking utensils, crockery, etc. Undoubtedly the most complete cruiser available. Location, New York. Price and further particulars from RIGG'S YACHT AGENCY, 350 Madison Avenue, New York City.



**FOR SALE—No. 69.**—Raised deck power cruiser. Good sea boat and very comfortable. Dimensions 40' x 10' x 3' 6" draft. Twentieth Century Motor. Large full-width double stateroom, saloon with two berths, also for man in engine room. Very cheap for quick sale. Apply RIGG'S YACHT AGENCY, 350 Madison Avenue, New York City.



**FOR SALE—No. 1222.**—A very heavily constructed, beautifully finished cruiser of latest and most popular type. Dimensions 46' long x 11' beam and 3' 6" draft. Only one year old. Ideal layout with two separate double staterooms, two toilets and real bathroom, all beautifully finished in mahogany and white. Motor is a 35/70 HP Peerless with self starter. Boat is screened throughout and fully furnished. The best boat of her size we have had to offer in many moons. Location, New York. Full particulars from RIGG'S YACHT AGENCY, 350 Madison Avenue, New York City.



**FOR SALE—No. 718.**—42' bridge deck cruiser. Two double staterooms, enclosed bridge, electric lighting, separate galley. Bargain price for quick sale. Apply RIGG'S YACHT AGENCY, 350 Madison Avenue, New York City.



# YACHTMEN'S SERVICE AGENCY

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Phone: Walnut 4830

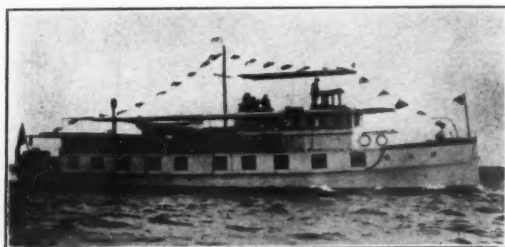
## ILLUSTRATED LISTING OF YACHTS FOR SALE



122' 6" x 18' x 6' 8" Steam Yacht. 175 I.H.P. Sullivan Engine.

### STEAM YACHTS.

190' x 28' x 14' 6" Steam Yacht. 500 I.H.P. Triple Exp. Engine.  
 179' x 29' 2" x 10' 11" Steam Yacht. 300 I.H.P. Triple Exp. Engine.  
 158' x 25' x 12' 9" Steam Yacht. 600 I.H.P. Triple Exp. Engine.  
 150' x 19' 10" x 7' 6" Steam Yacht. 600 I.H.P. Triple Exp. Engine.  
 145' x 17' 3" x 7' 6" Steam Yacht. 600 I.H.P. Seabury Engine.  
 128' x 16' 3" x 7' 2" Steam Yacht. 600 I.H.P. Sullivan Engine.  
 79' x 10' x 3' 6" Steam Yacht. 80 I.H.P. Triple Exp. Engine.



### "SALFRAN"

85' x 17' x 3' 6" Houseboat. 50 H.P. Standard.

### HOUSEBOATS

129' x 22' x 3' 6" Houseboat. (2) 220 H.P. Standards.  
 100' x 18' 3" x 3' Houseboat. (2) 80 H.P. Wintons.  
 80' x 17' 6" x 3' 3" Houseboat. (2) 90 H.P. Standards.  
 77' x 18' 6" x 2' 6" Houseboat. (2) 75 H.P. 20th Century.  
 65' x 14' x 4' Cruising Houseboat. (2) 60 H.P. Standards.  
 65' x 14' x 3' 10" Houseboat. (2) 165 H.P. Sterlings.  
 49' 11" x 13' 7" x 3' Houseboat. 50 H.P. Standard.  
 45' x 12' x 3' 6" Houseboat. 28 H.P. Campbell.  
 50' x 14' 6" x 3' Houseboat. 50 H.P. 20th Century.  
 50' x 15' x 30" Houseboat. 70 H.P. Fay & Bowen.



76' 6" x 12' 9" x 3' 6" Wood Hull. (2) 150 H.P. Van Blerck engines.

### LARGE GASOLINE CRUISERS

138' x 15' 4" x 11' 9" Steel Hull. (2) 205 H.P. Speedways.  
 130' x 14' 4" x 5' Steel Hull. (2) 200 H.P. Wintons.  
 110' x 18' x 6' 6" Wood Hull. (2) 180 H.P. Craig-Deisels.  
 94' x 14' x 4' Steel Hull. (2) 40 H.P. Standards.  
 93' x 18' 2" x 3' 10" Wood Hull. (2) 100 H.P. Speedways.  
 80' x 14' x 3' 7" Wood Hull. (2) 200 H.P. Van Blercks.  
 80' x 14' x 3' 6" Wood Hull. (2) 75 H.P. Standards.  
 75' x 12' 6" x 3' 6" Wood Hull. (2) 50 H.P. Sterlings.  
 72' x 12' 6" x 3' 6" Wood Hull. (2) 150 H.P. Wintons.  
 68' 6" x 13' x 3' Wood Hull. (2) 40 H.P. Lambs.  
 65' x 13' x 4' Wood Hull. 100 H.P. Sterling.  
 65' x 14' x 4' 7" Wood Hull. 80 H.P. Winton.  
 64' x 12' x 4' 6" Wood Hull. 50 H.P. Sterling.  
 64' 10" x 14' x 3' 10" Wood Hull. (2) 100 H.P. Sterlings.

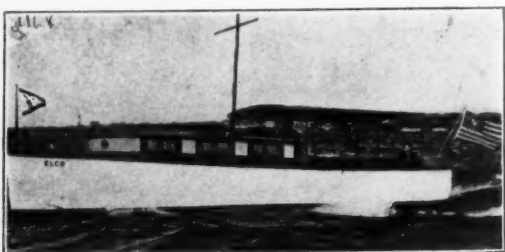


### "KIOWAN"

45' x 10' 6" x 3' Bridge Deck. 45 H.P. Fay & Bowen.

### BRIDGE DECK CRUISERS

60' x 12' 6" x 3' 6" Bridge Deck. 65 H.P. 20th Century.  
 58' 6" x 12' x 4' Bridge Deck. 90 H.P. M. & T.  
 57' x 13' x 3' Bridge Deck. (2) 35 H.P. Standards.  
 57' x 11' 4" x 3' 6" Bridge Deck. 37 H.P. Standard.  
 54' x 11' x 3' Bridge Deck. (2) 15 H.P. Storks.  
 53' x 13' x 3' Bridge Deck. 40 H.P. Doman.  
 52' x 11' 3" x 3' Bridge Deck. 150 H.P. Speedway.  
 52' 9" x 8' 6" x 3' 3" Bridge Deck. 40 H.P. Lathrop.  
 50' x 11' x 3' Bridge Deck. 50 H.P. 20th Century.  
 41' 6" x 9' 6" x 3' 3" Bridge Deck. 85 H.P. Van Blerck.  
 40' x 10' x 3' Bridge Deck. 24 H.P. Standard.  
 38' x 10' x 3' 3" Bridge Deck. 24 H.P. Palmer.  
 New 40' exceptionally well built Bridge Deck Cruiser. Van Blerck motor.



34' Elco Cruisette. Built 1923. J. V. B. Motor.

### ELCO CRUISERS.

56' x 11' x 4' Elco Cruiser. 45 H.P. Sterling.  
 50' 10" x 10' 4" x 3' 3" Elco Cruiser. 150 H.P. Sterling.



36' x 8' 2" x 2' 11" Trunk Cabin. 125 H.P. Hall Scott Marine.

### TRUNK CABIN CRUISERS.

59' 6" x 12' 4" x 2' 9" Trunk Cabin. 50 H.P. Harris.  
 50' x 13' x 3' 6" Trunk Cabin. 37 H.P. Standard.  
 42' x 9' 6" x 3' Trunk Cabin. 30 H.P. Keystone.  
 30' x 9' 8" x 3' Trunk Cabin. 12 H.P. Palmer.

**AND MANY OTHER TYPE YACHTS AND COMMERCIAL BOATS**

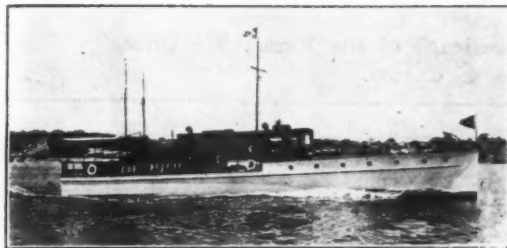


## YACHTMEN'S SERVICE AGENCY

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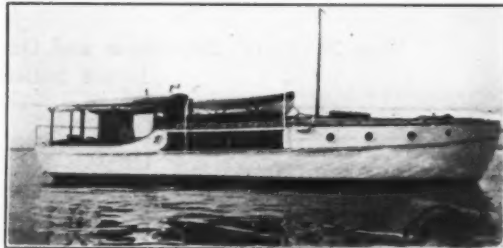
## ILLUSTRATED LISTING OF YACHTS FOR SALE

**"FOX"**

66' x 11' 4" x 3' 2" Express Cruiser. (2) 200 H.P. Van Blercks.

## EXPRESS CRUISERS

72' x 14' x 3' 4" Mahogany Hull. (2) 200 H.P. Allisons.  
 65' 5" x 12' 6" x 3' 4" Mahogany Hull. (2) 300 H.P. Sterlings.  
 57' x 11' x 4' Cedar Hull. 125 H.P. Van Blerck.  
 55' x 11' x 2' 9" Hand V-bottom. (2) 150 H.P. Van Blercks.  
 52' x 11' 4" x 3' 4" Express Cruiser. (2) 135 H.P. Speedways.  
 50' x 11' x 3' V-bottom Cruiser. (2) 150 H.P. Van Blercks.  
 50' x 10' 6" x 3' 9" Great Lakes. 300 H.P. Van Blerck.  
 45' x 10' 4" x 2' 9" Rochester. 85 H.P. Sterling.  
 42' x 9' x 2' 11" Lawley Cruiser. 300 H.P. Sterling.

**"ALHO"**

40' x 12' x 3' Raised Deck. 30 H.P. Vulcan.

## RAISED DECK CRUISERS

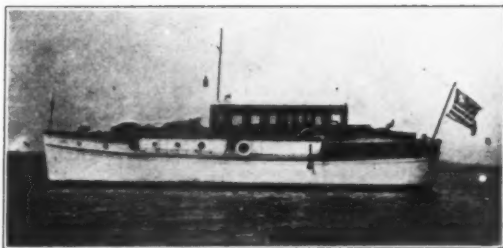
60' x 15' 7" x 4' 6" Raised Deck. 75 H.P. Murray & Tregurtha.  
 57' x 11' x 3' 4" Raised Deck. 55 H.P. Standard.  
 50' x 10' x 3' 5" Raised Deck. 60 H.P. Speedway.  
 40' x 8' 9" x 3' 9" Raised Deck. 60 H.P. Engine.  
 37' 2" x 8' 6" x 3' Raised Deck. 40 H.P. Continental.  
 36' x 9' x 2' 6" Raised Deck. 150 H.P. Speedway.  
 30' 7" x 8' x 2' 6" Raised Deck. 16 H.P. Fay & Brown.  
 30' x 10' 6" x 3' Raised Deck. 30 H.P. Keystone.  
 41' x 10' x 3' 6" Raised Deck. 65 H.P. Sterling.

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We Sell Boats

On Convenient Payments

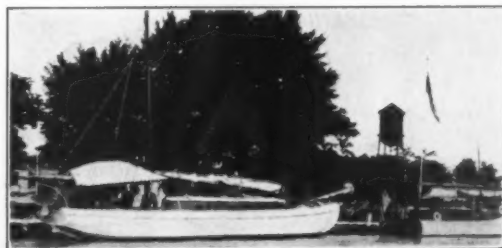
New or Used Popular Types Including Standardized Cruisers



38' x 10' x 3' 6" twin-screw inclosed Bridge Deck Cruiser. Two 25 H.P. motors; speed, 10 mi.; sleeps five.

## INCLOSED BRIDGE DECKS

50' 3" x 10' 7" x 4' Inclosed Bridge Deck. 75 H.P. Sterling.  
 48' 9" x 12' x 3' Inclosed Bridge Deck (2) 24 H.P. Palmers.  
 45' x 10' 3" x 3' 10" Inclosed Bridge Deck. (2) 75 H.P. Van Blercks.  
 40' x 12' x 3' Inclosed Bridge Deck. 16 H.P. Standard.  
 40' x 12' x 3' Inclosed Bridge Deck. 16 H.P. H. D. Standard.



58' x 15' x 4' 6" Auxiliary Ketch. 50 H.P. Holmes.

## AUXILIARIES

136' x 25' 6" x 14' 3" Schooner. 125 H.P. M. & T.  
 78' x 17' 3" x 9' Auxiliary Schooner. 24 H.P. Palmer.  
 70' x 15' x 9' Keel Schooner. 30 H.P. Lathrop.  
 63' 6" x 15' 6" x 4' C. B. Auxiliary Yawl. 40 H.P. Scripps.  
 60' x 16' x 4' Flush Deck Schooner. 20 H.P. Relaco.  
 44' x 13' x 5' Keel Auxiliary Yawl. 12 H.P. Palmer.  
 43' x 12' x 5' 9" Keel Yawl. 20 H.P. Sterling.  
 41' x 11' x 3' 6" Auxiliary Yawl. 10 H.P. Vulcan.  
 40' 10" x 14' x 5' 6" Keel Auxiliary Schooner. 12 H.P. Lathrop.  
 40' x 10' x 3' Bugeye Schooner. 7 H.P. Regal.

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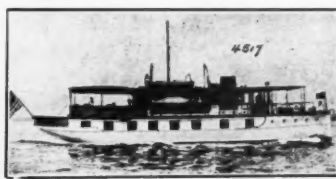
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Our 30 Years' Experience and Our Knowledge of the Yachts We Offer,  
 Insure Satisfaction to Clients.



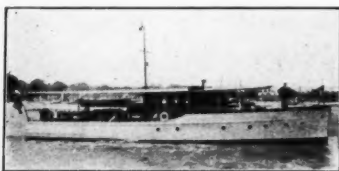
No. 2105—43 foot Express Day Cruiser, 8' beam; 2' draft. Construction Mahogany throughout. Transom seats in cabin. Toilet room. 45-75 H.P. Sterling Motor. Speed 20-22 miles. Electric lights, etc. Is controlled like an automobile. Good proposition.



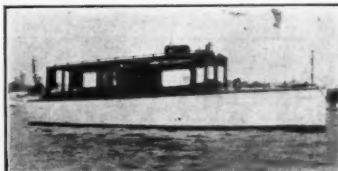
No. 4517—Sale or charter. Twin screw House boat 70' x 16' 6" x 3' 6". Three double and one single stateroom. Large deckhouse containing dining and living room. Two toilets and bath. Two 70-80 H.P. motors. Speed 12-14 miles. Hot water heat. Electric lights, etc.



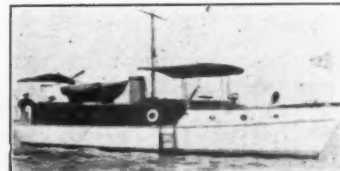
No. 1847—Twin Screw Express Cruiser. 60' 9" x 11' 6" x 3' draft. Double stateroom; two berths in main cabin. Bathroom, etc. Berths and toilet for crew. Two 150-200 H.P. Sterling Motors. Speed up to 25 miles. Electric lights, etc. Strictly high class outfit. Splendid seaboat.



No. 2584—65 ft. Twin screw power yacht. Two double staterooms, dining saloon and roomy deckhouse. Two toilets and bath. Two sterling Motors. Speed 13-14 miles. Electric light. Hot water heat, etc. Splendid proposition.



No. 2552—30 foot Sedan Cruiser. V Bottom. 8 ft. beam; 2 ft. draft. Built 1922. Well built. Cedar planked; copper fastened. Cabin inside and out; also decks of Philippine mahogany. 35 H.P. Fiat Marine Motor. Speed up to 17 miles. Electric lights, etc.



No. 956—Bridge deck cruiser. 43 ft. x 9 ft x 2 ft. 9 in. Built by New York Yacht, Launch & Engine Company. Large cabin with four berths. Solid mahogany finish inside and outside. Toilet room. 24-30 H.P. 20th Century Motor. Rebuilt by makers 1925. Speed 10 to 12 miles. Splendid proposition. Price attractive for quick sale.



No. 2583—Enclosed bridge deck, V Bottom cruiser. 45 feet long. 10' 4" beam; 2' 9" draft. Designed and built by Rochester Boat Works in 1920. Mahogany planking. White oak frames. Copper fastened. Double stateroom aft. Two upper and two lower berths in forward cabin. Toilet room with shower. 85-125 H.P. Sterling motor. Electric starter, etc. Speed 13-16 miles. Thoroughly overhauled 1924 at a great expense. Very complete inventory including 18 blankets, full equipment of linen, silver, rugs, etc. Electric bilge pump, toaster, vacuum cleaner, five electric fans, Victrola, Radio, new stove and cooking utensils, etc. Home-lite electric plant. Searchlight. Screens for all windows and ports; all the above new 1924. Three anchors and anchor davit. 10 ft. cedar dinghy with Johnson Outboard Motor. 12 ft. tender with 2 cylinder inboard motor. Life raft. This is a bargain for quick action. May consider terms to right party. Inspectable in New York. Further particulars. H. H. Jennings Company, 154 Nassau Street, New York City.

## WILLIAM GARDNER &amp; CO.

Naval Architects, Marine Engineers and Yacht Brokers

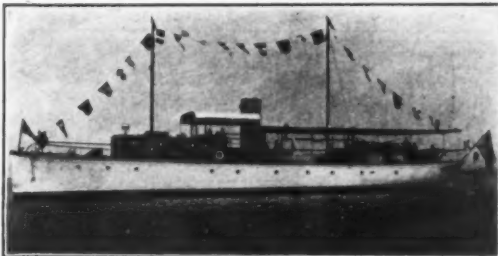
Phone 8638 Bowling Green

No. 1 BROADWAY, NEW YORK

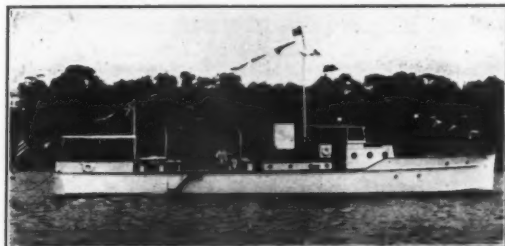
Cable Address: Yachting, N.Y.



No. 1802—Sale and Charter—Steel, twin screw power yacht, 110' x 16'; two 6-cylinder Standard motors. Very large deck house and exceptional owner's accommodations. Plan and full details gladly submitted.



No. 2331—Flush deck, power yacht, 90 x 16.3 x 5.6, equipped with two 6-cylinder Winton motors, has excellent accommodation and of staunch construction.



No. 2334—For Sale—Attractive 85 ft. twin screw Lawley built power yacht, two 6-cylinder 200 H.P. Sterlings, speed 18-20 miles. Splendid accommodation and everything in A-1 condition.



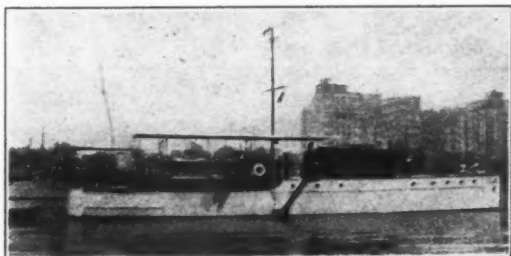
No. 1719—Power cruiser 66 x 13' 4", six cylinder motor, speed 12 miles, deck dining saloon, and comfortable owner's quarters.

WILLIAM GARDNER & CO. HAVE A COMPLETE LIST OF YACHTS OF EVERY DESCRIPTION FOR SALE AND CHARTER. PLANS, PHOTOS, AND FULL PARTICULARS FURNISHED ON REQUEST

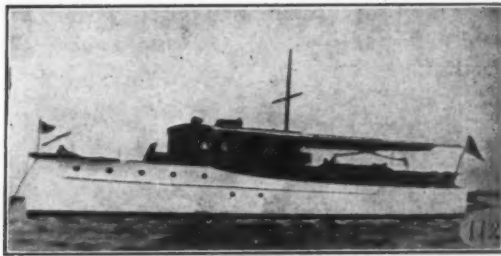
YACHT BROKERS  
NAVAL ARCHITECTSHenry C. Grebe & Co., Inc.  
6 NORTH MICHIGAN AVE., CHICAGOMARINE INSURANCE  
SURVEYING

TELEPHONE CENTRAL 1261

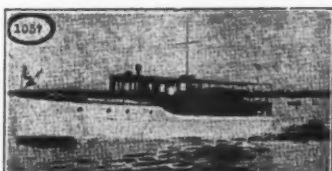
We have a complete list of all steam and power yachts, auxiliaries, and houseboats, which are for SALE and CHARTER. Plans, photographs and full particulars furnished on request.



No. 985—For Sale—73 ft. x 13 ft. 6 in. x 3 ft. 6 in. twin-screw cruiser. Recent build. Two single and one double staterooms. Two toilets with showers. Dining saloon and deckhouse. A beautiful boat, mahogany finish throughout and as good as new. Henry C. Grebe & Co., 6 N. Michigan Ave., Chicago, Ill.



No. 1120—For Sale—55 ft. x 13 ft. 6 in. x 3 in. draft Modern twin screw deckhouse cruiser. Built 1923. 2 double staterooms. Two medium duty 6 cylinder Scripps motors. Very attractive price for immediate sale. Henry C. Grebe & Co., Inc., 6 N. Michigan Ave., Chicago, Ill.



No. 1057—For Sale—Twin screw. New 1921; 50 ft. x 12 ft. x 3 ft.; very complete and in excellent condition. Sleeps six comfortably in owner's quarters. Has comfortable deckhouse and roomy after-deck. Reasonable price. Henry C. Grebe & Co., Inc., 6 North Michigan Ave., Chicago, Ill.



No. 1124—For Sale—42 ft. x 10 ft. x 3 ft. Great Lakes Day Cruiser. Used very little. Best condition. 6 cylinder Sterling engine. Speed up to 23 miles. Sleeps four. Large cockpit. Engine room separated from rest of boat. Price very low. Henry C. Grebe & Co., Inc., 6 North Michigan Ave., Chicago, Ill.



No. 1018—For Sale—54 ft. Great Lakes express cruiser. New 1922. Speed 20-25 miles per hour. Double stateroom and large main saloon. Two toilets and shower bath. Well equipped and in excellent condition. Henry C. Grebe & Co., Inc., 6 North Michigan Ave., Chicago, Ill.

When writing to advertisers please mention MOTOR BOATING, the National Magazine of Motor Boating, 120 West 40th Street, New York

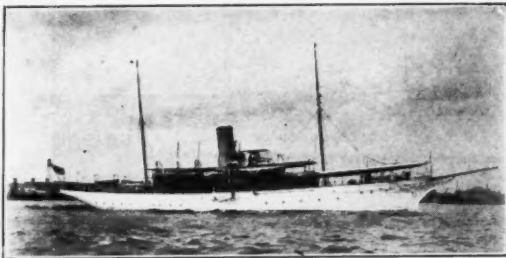
# FRANK BOWNE JONES

 Telephone  
 Whitehall 1170

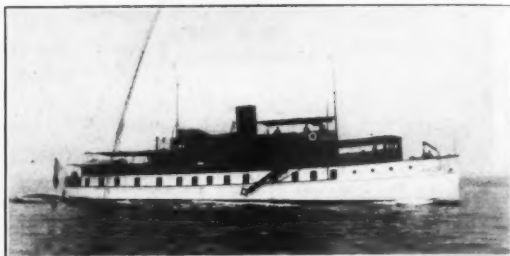
**YACHT AGENT and SHIP BROKER**  
**Cunard Building, 25 Broadway, New York**

 Cable Address  
 "Windward," N. Y.

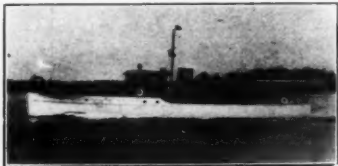
OFFICE No. 1051

**Sales and Charters—Naval Architecture—Marine Insurance**


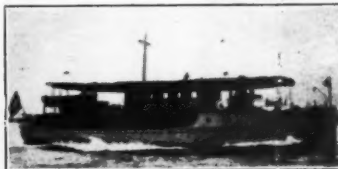
No. 5620—For Sale—Ocean going steel steam yacht built to Lloyd's highest rating. A number of larger and smaller yachts of similar type. FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.



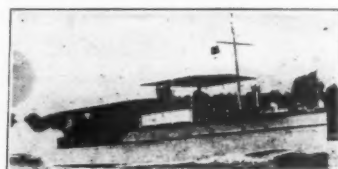
No. 2277—For Sale or Charter—Power house yacht. Length 115'. Recent build. Probably the best yacht of this size and type. Commodious accommodations. Handsomely fitted. FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.



No. 7242—For Sale—73-ft. twin-screw power yacht. Recent build. Sterling motors. Excellent accommodations. Speed 15 to 18 miles. FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York.



No. 4704—For Sale—Power house yacht, 67 ft. long. Best design and build. Practically new. Now on way North. FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York City.



No. 5572—For Sale—60-ft. V-bottom express cruiser. 2GR Sterling motors. Bridge deck. Double stateroom. Large saloon, bath. FRANK BOWNE JONES, Yacht Agent, 25 Broadway, New York City.

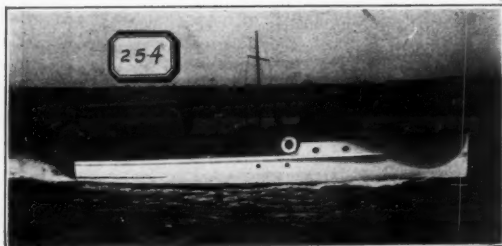
Chester A. Nedwidek

**CHARLES D. MOWER**

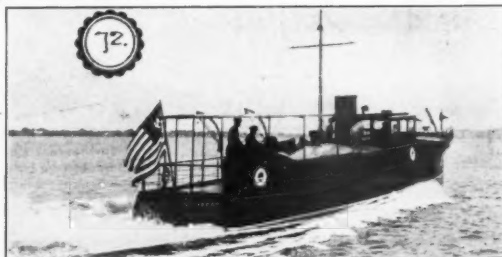
E. P. Nevin

*Naval Architect*  
**350 MADISON AVENUE**  
*at Forty Fifth Street*  
**NEW YORK.**

 Yacht Brokerage  
 Marine Insurance

 Telephone  
 Murray Hill 3748


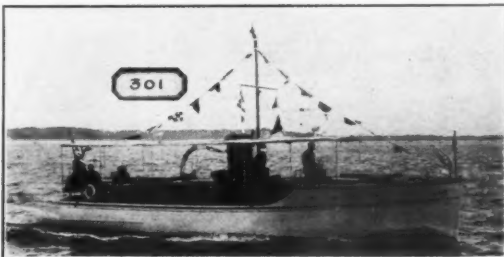
No. 254—FOR SALE—Bridge deck cruiser, new this year, 46' x 11' x 3' 3". Excellent accommodations. Charles D. Mower, 350 Madison Ave., New York City.



No. 72—FOR SALE—Twin screw express cruiser, 62' x 14' x 4'. Sterling Engines. Fine cruising accommodations. Full equipment. Speed 18 to 26 miles per hour. Charles D. Mower, 350 Madison Ave., New York City.



No. 172—FOR SALE—Auxiliary cruising schooner, 39' x 32' x 11' 10" x 4'. Mower design, built 1923. Double stateroom, large main cabin, comfortable cruising boat. Charles D. Mower, 350 Madison Ave., New York City.



No. 301—Raised deck power cruiser, 45' x 11' x 2' 10". Two double staterooms, two toilet rooms. Able, comfortable, seaworthy cruiser. Speed 10-12.



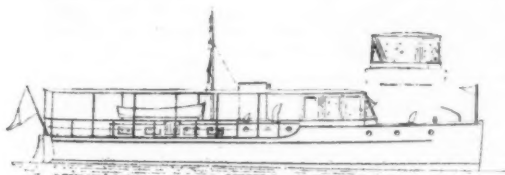
Telephone Vanderbilt 0969  
Cable Address Yachtsan, N. Y.

**HARRY W. SANFORD**

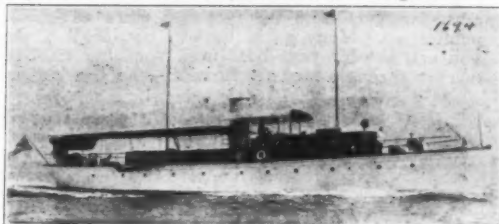
501 FIFTH AVENUE (42d ST.), N. Y.

**YACHT BROKER  
INSURANCE  
APPRAISER**

**Our Motto:** "To offer yachts, whether large or small, which will be a pleasure for you to own and a recommendation for us to sell; to render such service as to have you feel you would like to do business with us again."



No. 755—For Sale—Clean-cut, able and beautiful 60' twin-screw cruiser. Speed 18 miles. 2 Speedway motors with starters. 2 double staterooms and saloon; deck-house. Roomy bridge and after deck. Comfortable staterooms, and furnished in best possible manner.



No. 1694—For Sale—Attractive 90' twin-screw cruiser. Speed 13-14 miles. 3 comfortable staterooms, deck dining saloon, bath, etc. Winton 100 H.P. motors. Able, seaworthy and has had unusually good care. Can be recommended very highly.



No. 1611—For Sale—One of the well-known Elco 45' cruisers, built in 1923. 1 double stateroom and saloon, sleeping 6 comfortably. Berth for crew. Built under owner's supervision, having many extras. Speed 10½ miles. Fully found in every respect.



No. 519—For Sale—Unusually attractive and able auxiliary schooner, 65x15'5"x9'—W. L. 51'. Designed by Crownshield and built by Hodgdon Bros. in 1907. Has 1 double and 1 single stateroom and large saloon. Sails new 1924. Delco lighting plant. Kept up in the best possible manner and offered at a very reasonable price.

**SOUTHERN YACHT AGENCY**

1001 American Building

BALTIMORE, MD.

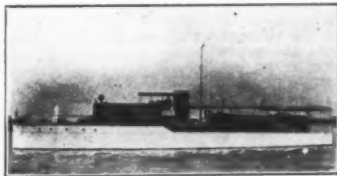
Phone: Plaza 3787

**YACHTS FOR SALE AND CHARTER  
MARINE INSURANCE**

**NAVAL ARCHITECTURE  
AND ENGINEERING**



FOR SALE—53 ft. Express Cruiser in first class condition. For prompt sale will sell at price that will surprise you. SOUTHERN YACHT AGENCY, American Building, Baltimore, Md.



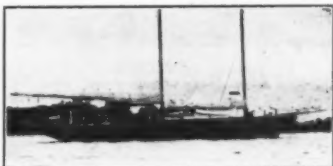
FOR SALE—82 ft. Lawley Cruiser. In perfect condition. Sell at one-third cost. SOUTHERN YACHT AGENCY, American Building, Baltimore, Md.



65 ft. twin screw cruiser. Built 1923. Practically brand new and in perfect condition. Two 150 h.p. speedways. Will sell at sacrifice as owner building larger yacht. SOUTHERN YACHT AGENCY, American Building, Baltimore, Md.



40 ft. Mahogany Sedan Runabout. Finished bright. Round bottom. Looks like new. Cheap. SOUTHERN YACHT AGENCY, American Bldg., Baltimore, Md.



85 ft. Light draft aux. schooner. Excellent condition. Very cheap. SOUTHERN YACHT AGENCY, American Bldg., Baltimore, Md.



25 ft. V-bottom. New 60 h.p. Fay & Bowen engine, 1924. Speed 25 miles. Everything perfect condition. Cost new over \$4,000. Price \$2,500. No less. SOUTHERN YACHT AGENCY, American Bldg., Baltimore, Md.

## MoToR BoatinG's

### Market Place Brings Buyer and Seller Together

**A**N advertisement in MoToR BoatinG's Market Place will put you in touch with a buyer for your boat quickly and economically. The proof of the result of pulling power of MoToR BoatinG's classified advertisements is in the fact that more advertising appears in MoToR BoatinG than in any other boating publication. Many yacht brokers use MoToR BoatinG exclusively. You will never know the best price you can get for your boat until you offer it in the open market. You can reach the biggest interested market through MoToR BoatinG—the boating publication with the largest circulation.

The rate for "For Sale" and "Want" advertisements is 8 cents per word; minimum \$2.00. If an illustration is used the charge is as follows, which includes the making of the cut:

Cut 1 inch deep, two inches wide.....	\$9
Cut 1½ inches deep, three inches wide.....	12
Cut 2¼ inches deep, four inches wide.....	20
Cut 2¾ inches deep, six inches wide.....	25

Classified advertisements set entirely in small light face type. No extra charge for capitals. Bold face type used at display rate, \$12 per inch, single column.

**Advertisements for June issue can be accepted up to May 12th**  
**MAIL YOURS TODAY**

## MoToR BoatinG

119 W. 40th Street, New York City



**No. 357—FOR SALE**—Sixty-five-foot twin-screw power cruiser, new in 1924. Designed by Mower, built by New York Yacht, Launch & Engine Co., Morris Heights, N. Y. Finest construction and finish, equipment complete in every detail, interior furnishings by Hampton Shop. Cabin arrangement includes owner's double stateroom with connecting bathroom; after cabin, which can be used as a double stateroom, with separate toilet room; large enclosed deck house; large galley; unusually fine engine room and crew quarters. Large deck space aft, with permanent wind shield. Machinery equipment consists of two six-cylinder heavy duty 20th Century Motors, which give a speed of 14 to 15 miles. Separate lighting outfit, with extra large battery capacity. Electric capstan and electrically operated ice machine. Large tank capacity for gasoline and water.

Boat is in perfect condition, and has been in commission in Florida this winter. Is a very fine seaboard, and made the passage from New York to Florida in January, going outside the entire distance. Is offered for sale, as owner will be unable to use her this season. Inspectable New York City.

For further particulars apply to Charles D. Mower, 350 Madison Avenue, New York.



**For Sale:** New bridge deck cruiser, double cabin—35' x 8' 6", 2' 6" draft, Sterling motor, speed 17 M.P.H. G. Bailer, 573-7th Avenue, Astoria, L. I. Phone.

### New York Canals Open

It was announced by Commissioner of Canals and Waterways, Royal K. Fuller, that unless flood conditions prevent, the Erie, Oswego and Cayuga-Seneca canals would be opened to navigation at twelve o'clock noon, Wednesday, April 22nd.

In this connection, shipping interests and boat operators are reminded that the usual spring freshets affecting the canals have not occurred this year and there is still a quantity of snow in the Adirondacks which with continued rain may make it impossible to open the canals as early as planned.

The Champlain Canal cannot be opened before May first on account of two repair contracts; one at Lock 7, Fort Edward, and the other at the Glens Falls Feeder.

**Cabin Cruiser "Seaward"**—new August, 1923, run less than 500 miles—Overall measurements, 32 ft. x 9 ft. x 3 ft. draft. Has larger locker—4 big berths—large galley—4 ft. toilet and a fine big cockpit with awning. Fully equipped and ready to cruise. Has wireless receiving outfit and three cylinder 5 x 6 Palmer. Full details with price by mail upon receipt of written request. **COLUMBIA BOAT COMPANY, INCORPORATED**, S. Fulton Ave., Mount Vernon, N. Y.

**Cabin Cruiser "Playtime"**—25 ft. x 7 ft. x 2½ ft. Has Palmer engine—nice locker—toilet room—galley and two good berths. Complete with awning, dink and oars. This boat is in fine condition, and is a good buy for any one who wants a real sea boat. Write or call **COLUMBIA BOAT COMPANY, S. Fulton Ave., Mount Vernon, N. Y.**

**Flat Bottom Cabin Cruiser "Columbia Twenty"** in good condition; guaranteed by Columbia Boat Company. Dimensions, 20 ft. x 7 ft. Palmer engine. Galley, toilet, locker space, and berth accommodations for two or three people. Good cockpit. Complete equipment. **COLUMBIA BOAT COMPANY, INCORPORATED**, S. Fulton Ave., Mount Vernon, N. Y.



**Cruiser, Navy Hull, 40' x 9-¾".** New Palmer Engine, 25-30 H.P. Delco Lighting System. Completely Equipped. Atkinson, 143 Berkeley Place, Brooklyn, N. Y.

**Pierce-Budd Motor, three-cylinder, 18-24 Horsepower.** Good as new. \$150.00. Single-cylinder Thrall, 2 Horsepower, \$18.00. Henry H. Smith & Co., 334 Jefferson Ave., Detroit, Mich.

**FOR SALE**—Surplus stock; new 4-cylinder, 4-cycle, 12-H.P. motors. I. C. Murray, Traverse City, Mich.

Advertising Index will be found on page 166

I have a beautiful estate, consisting of three acres on Long Island Sound, two hundred forty feet water front with seawall, bathing and sandy beach, also riparian rights in exclusive Westchester Country Club. Suitable for Yacht Club. All year round colonial residence, modern in every respect, twenty rooms in all. Seven master's bedrooms, four servant's rooms, three baths, lavatory and toilet, six fire places, two furnaces, oak floors. Beautifully landscaped grounds with shade trees, shrubs and flowers, garage for three cars. No agents. Mrs. M. T. Campbell, 18 E. 95th Street, New York, N. Y.



**New Cruiser for Sale 49½ x 11'**

IMMEDIATE DELIVERY

Ditchburn Boats, Ltd., Gravenhurst, Ont., Can.

## THE MOTOR BOATING MARKET PLACE

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Cut one inch deep, two inches wide.....	\$9
Cut 1½ inches deep, three inches wide.....	\$12
Cut 2¼ inches deep, four inches wide.....	\$20
Cut 3¼ inches deep, six inches wide.....	\$25

Classified advertisements set entirely in small light face type. No extra charge for capitals. Bold face type used at display rate, \$12 per inch, single column.

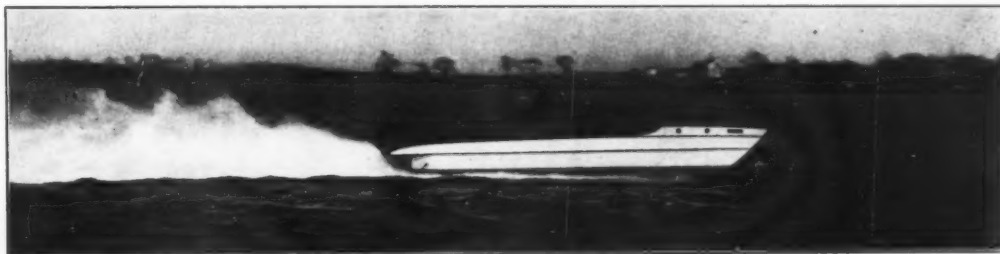
New advertisements can be accepted up to twelfth of month for following issues.

Opportunities  
for the  
Motor Boatman

Before you buy or before you sell examine the exceptional buying and selling opportunities under this heading. They comprise the best offers of the month. Please mention MoToR Boating.

MoToR Boating, 119 West 40th St., New York

## FOR SALE—TWO 40 M. P. H. SEA SLEDS

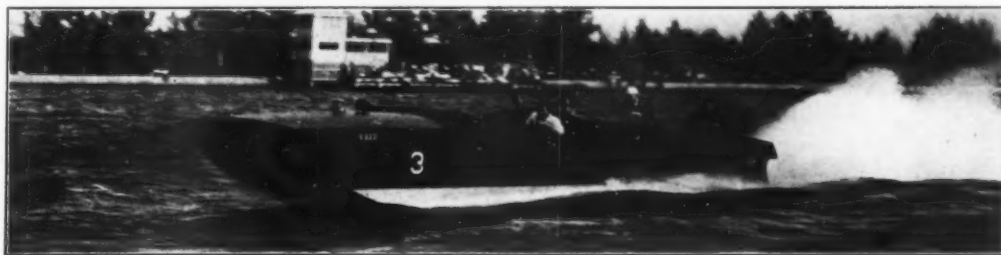


38-FOOT SEA SLED CRUISER

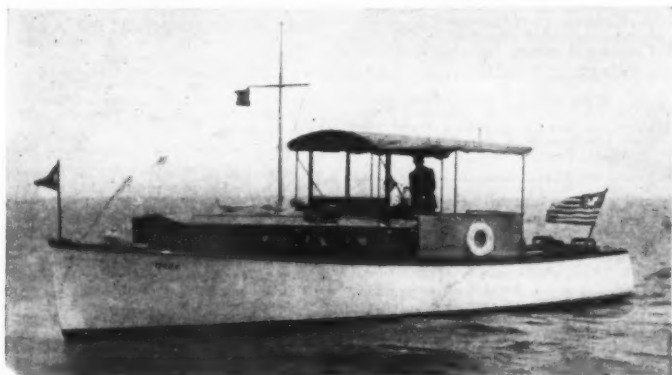
Above—Cost \$25,000 last year, will sell cheap. Immediate delivery. Run less than 1,000 miles. Carries same guarantee as new boat. Forty-mile speed guaranteed. Two berths, full headroom cabin, toilet, galley. Double planked mahogany throughout. 2 GRS Sterling engines.

40-FOOT SEA SLED RUNABOUT

Below—This super mahogany runabout ideal for commuting or passenger carrying. Seating capacity, 15. Speed guaranteed, 40 miles per hour. Engines, 2 GRS Sterlings. Engines and hull just overhauled. Immediate delivery, \$15,000.



SEA SLED COMPANY, LTD., West Mystic, Conn.



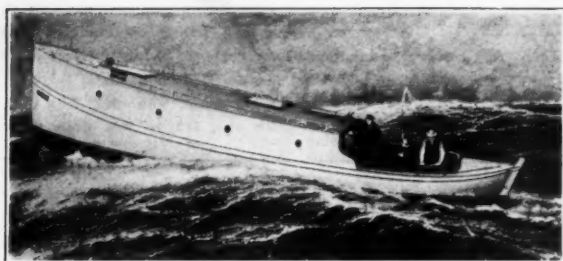
FOR SALE—Consolidated Bridge Deck Cruiser. 34 ft. long; 8 ft. beam; 2 ft. 3 in. draft. Built May, 1924. Delightful Saloon, spring berths; lavatory and galley. Nice Bridge Deck with Windshield. Cockpit with easy chairs. Speedway Engine, 6 cylinder, very smooth and quiet. Speed 15 miles. Would be delivered in guaranteed running order. THOMAS S. HANSON, Yacht Broker, 19 West 44th St., New York City.

Surplus Stocks at enormously reduced prices:  
"Schebler" Model "R" Carburetors 1", 1¼" and 1½", \$4.00, \$4.25 and \$5.00 each.  
"Kingston" Model "L" Carburetors, ¾", \$1.60 each.  
"Zenith" Model "QC" Carburetors, 1", \$2.25 each.  
"Dixie" Model 46° Magnetos, 4 cyl. R.H., \$8.00 each.  
"Dixie" Model 46° Magnetos, 4 cyl. R.H. with Impulse Starters, \$14.00 each.  
"Simms" Model 6X Magnetos, 6 cyl., R.H., \$10.00 each.  
"Detroit" 7 feed Force Feed Oilers, Model "A", \$10.00 each.  
"Lippman" 1½" Gear Pumps, Bronze Gears and Bgs., \$5.00 each.  
"German Bosch" ZF4 four cyl. Magnetos (Waterproof), \$12.00 each.  
"Wiscard" Magnetos L.T., type 60 with Igniter, \$6.00 each.  
Flexible Generator Couplings, ¾", 25 cents each.

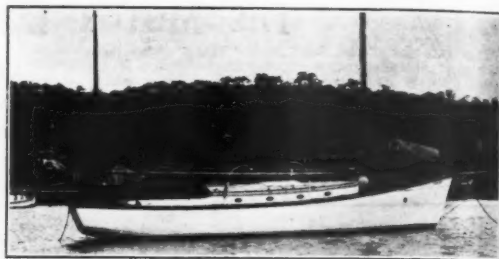
All goods offered are new.  
Peru Model Engine Co., Inc., Peru, Ind.

FOR SALE—Three Horse Power Gray Marine Engine, complete with reverse gear. Outfit in good condition. Price \$30.00. Onkhurst Garage, Greenville, Pa.

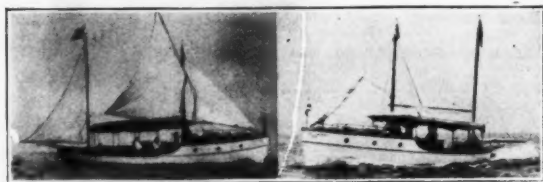




**FOR SALE—30-foot, Raised-deck Cruiser, Sea Bird;** light starter; everything. Write for picture and inventory if interested; at \$2,000; ready to go. Chas. R. Waterhouse, 74 Park St., New Haven, Conn.



**FOR SALE—Heavy auxiliary yawl.** Built 1919. L. o. a., 41 ft.; w. l., 38 ft.; beam, 12 ft.; draft, 4 ft. Cabin arranged to sleep four, 6-h. headroom. 30 H.P. Palmer motor; speed under power, 10 miles an hour. Sails in very good order. New standing and running rigging, new sail covers, new cushions for cabin. Yawl has complete inventory, including anchors, warps, compass, lights, dishes, clock, 10-ft. dink, davits, fenders, in fact all the equipment a cruising boat needs. Yawl is in perfect condition and can be put in commission in a very short time. I have exclusive sale of the boat and the price is reasonable. William Atkin, Naval Architect, Box 275, Huntington, N. Y. Telephone 688.



**RAISED DECK 50-50 CRUISER, 35' x 10' x 3' x 6'**

Lathrop engine. Speed 10 miles. Maine built. In the pink of condition. Completely outfitted. High grade tackle and accessories. Sleeps six. Staunch and able in rough weather. Easy for one man. None better in Long Island Sound. HARRIS, P. O. Box No. 1008, Bridgeport, Connecticut.



No. 577—For Sale—Herreshoff yacht tender, 26' O. A. Red Wing motor, 40 H.P. Speed up to 15 M. P. H. Excellent condition. Price reasonable. For further particulars apply R. M. HADDOCK, Naval Architect and Yacht Broker, 50 East 42nd Street, New York City.

Four cyl., four cycle, with reverse gears—Clifton 8½ x 11, \$750. Buffalo, 5½ x 7, \$850. 5¼ x 7 Miller, \$450. 5 x 6 Van Blerck, \$255. 5 x 7 Wisconsin, \$365. 4¾ x 6 Doman, \$315. New 5¼ x 7 Model, \$425. 4 x 4 Kermath with electric starter, \$345. 3¾ x 4 Model Z Gray with electric starter, \$285. 4½ x 5 Truscott, \$235. Universal 2¾ x 4, \$185. New Erd tractor 4 x 6, \$235.

Eight cyl. 5½ x 6½ Van Blerck, \$550. 5½ x 5¼ Sterling six, \$485. 3 cyl. 7¾ x 8½ Wolverine, \$485. 6 x 6 Truscott 3 cyl., \$265. 4¼ x 6½ Doman, 2 cyl., \$225. Anderson 14 h.p. 2 cyl., \$275. 7 h.p. Frisbie 1 cyl 6 x 6, \$165.

Two cycle engines: 75 h.p. 6 cyl. Fox, \$275. 3 cyl. 5 x 5 Vim, \$185. 3 cyl. 5 x 5 Ferro, \$175. 3 cyl. Gray Model T 4 x 4, \$145. 3 cyl. Fairbanks-Morse 4½ x 4½, \$95. 3 cyl. 4 x 4 Pierce Budd, \$225. 4 cyl. Waterman 2¾ x 3, \$135. Erd 10 h.p. 2 cyl., \$70. Motorgo 6 h.p. 2 cyl., \$65. 1 cyl. 5½ h.p. Ferro, \$45. Small outboard and inboard motors, \$30 to \$50.

#### BADGER MOTOR COMPANY Milwaukee, Wis.

For Sale: Eighteen 1 cyl. 2 h.p. Outboard Motors, \$20 and up. Jesiek Bros., Macatawa, Mich.

We have several marine engines for sale. If interested write for price and specifications. W. C. Wood Company, 528 University Ave., Southeast, Minneapolis, Minn.

Bargains in Guaranteed New and Rebuilt Marine Engines, Magnetos, Starting Motors, Generators, etc. Anderson Engine Company, 4232 Lincoln Avenue, Chicago, Ill.

Bargains: Rebuilt marine engines. One to 6 cylinders. Motor and row-boats we have taken in trade. Send for list. Dept. "D," Everett Hunter Boat Co., McHenry, Ill.

For Sale: Runabout Panhard, Mississippi Valley Champion 1921. Electric Starter, etc. Ready to run. Also motors, all kinds, 25 to 40 Horsepower, including Erd 30 Horsepower. F. T. Holiday, Indianapolis, Ind.

#### USED MARINE ENGINES

9 H.P. Bridgeport—2 cyl. 2 cycle—4½x5—Reverse ..... \$ 95  
 20 H.P. Ralaco—4 cyl. 4 cycle—4x6—Reverse. 285  
 18 H.P. Jager—3 cyl. 4 cycle—5¼x6—Reverse 290  
 20 H.P. Clifton—4 cyl. 4 cycle—5x6—Reverse. 450

#### NEW MARINE ENGINE—Special Price

55 H.P. Heavy Duty Fay & Bowen—4½ cyl. 4 cycle—6½" bore x 8" stroke.....\$1500  
 This is a wonderful bargain.

#### USED MARINE ENGINES—Almost New

Perfect Mechanical Condition  
 45-85 H.P. Fay & Bowen—6 cyl. 4 cycle—5x6¼ ..... 1200  
 Phila. Headquarters for all kinds of Marine Supplies for Fifteen Years

#### MARINE EQUIPMENT & SUPPLY CO. 116 Walnut Street Philadelphia, Pa.

For Sale: Hacker 27 ft. 6 in. Runabout, 200 h.p. Peerless Marine 6-cylinder engine, complete and ready to run. Will sacrifice. G. C. Hall, foot of Commercial Street, Buffalo, N. Y.

For Sale: Price \$3,000. Raised-deck cruiser, 47-6 x 12 x 3-6. 32-37 h.p. Standard motor. Built 1913. Best bargain near New York. Sold for no fault: just quitting the water. Charles S. Fox, Fairfield, Conn.

31 Bargains. New bargain list just off press: bona fide bargains in engines 4 h.p. to 35 h.p. Few heavy duty; mostly medium duty, and some speed-boat engines for speeds up to 25 miles. Examples: Two cycle 4 h.p., \$40; 6 h.p., \$50; 12 h.p., \$95. Four cycle 16 h.p., \$195; 20 h.p. 4 cycle, \$189. Another 20-24 h.p., same model. \$255; Model "D," same as new, \$285; New 6 ½ h.p., \$111. Ask for bargain list "G." Gray Marine Motor Co., 6916 Lafayette Avenue, Detroit, Mich.

#### PROPELLERS

For Sale—Slightly used, good condition. Sizes from 16" to 36" diameter and 16" to 38" pitch. All bored for large shafts. Lowest prices. Advise. Sea Sled Company, Ltd., West Mystic, Conn.

**WANTED**—The best motorboat that \$1,000 or less will buy. Prefer the houseboat type. Give length, beam, power, speed, age, conveniences, and photo if convenient. Care City Manager McGee, Beaufort, South Carolina.

**HULL**—V-bottom runabout, 21x5; A-1 condition; complete, except motor; auto control; all bronze and brass equipped; Paragon gear. Just the boat for light 16-20 H.P. motor. \$200.00 cash. A. Drewitz, Newburgh, N. Y.

**FOR SALE**—Auxiliary schooners, 49'x12', just completed, \$12,500. 43'x13', oil engine, \$3,000. Others to 106'. Auxiliary sloop, 49'x16', Standard engine, \$7,500. Express cruisers, 66'x11', speed 25; 60'x12', speed 30; 54'x11', speed 27. Cruiser, 48'x11', 65 H.P. Sterling. Harry L. Becker, 185 Pine Street, Providence, R. I.

**NEW 18-FOOT** speed hull, beautifully finished, with new 32 to 40 H.P. Red Wing Thorobred motor, capable of 35 m. p. h.; bargain at \$1200. Another 18-foot hull, now building, \$500. 21-foot by 6-foot John Hacker hull, in fine condition, suitable for high speed motor, \$450. 21-foot Hand speed boat, 25 m.p.h., \$600. Other bargains in cabin cruisers. Noah S. Davidson, 51½ Pine St., So. Portland, Maine.

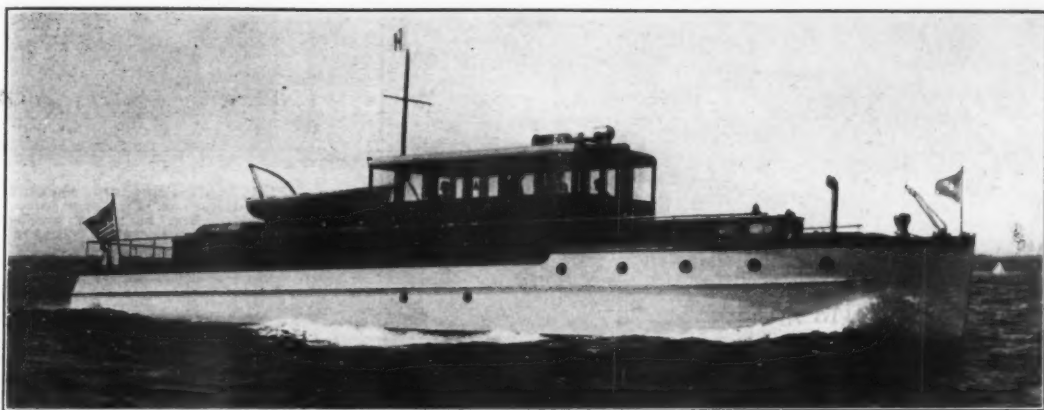
**FOR SALE**—Hacker 24-foot Mahogany runabout. Front and rear cockpits equipped with late model 4-cylinder, 70-H.P. Kermath Motor. Electric Starter. Bosch electrical equipment. All in perfect order ready to run. The finish is perfect. Looks like a new Boat. Cost \$3,500. fully equipped. Speed better than 25 miles per hour. Handles as easily as an automobile and is just as reliable.

Owner purchased a larger boat. Will make a substantial reduction from original price for quick sale.

If you want an up-to-date boat at a bargain Write—John J. Gibson—345 Beard Avenue, Buffalo, N. Y.

For Sale: 100 20-Gal. Seamless steel Gas tanks, 12" x 42", bargain price while they last. 26' Runabouts for Spring Delivery. Barreau Boat Works, on White Lake, Montague, Mich.





## Famous Sixty-Foot Cruising Yacht KEX For Sale

KEX was built with unusually complete accommodations for four persons and a crew of two, to cruise with maximum comfort, maximum seaworthiness and at low operating cost. She burns seven gallons an hour and will live through anything that blows. Extremely quiet, with a heavy duty, six cylinder Sterling.

Two fine double staterooms, a real bathroom, comfortable deckhouse, large saloon with Pullman berths, toilet room and all kinds of locker space. Two watertight bulkheads isolating engine room.

Every possible convenience aboard, from electric curling tongs to electric deck pump. Speed 11½ miles cruising. Built 1921. In fine condition.

Just returning from Florida cruise to arrive New York on May 1st for quick sale by owner, Frank P. Huckins, care Charles F. Chapman, Editor MoToR Boating, 119 West 40th Street, New York City.



### SOLID COMFORT

That should be her name, but it isn't. A real sea boat, designed by C. D. Mower, can take a dusting with the best of them, and comfort—oh, man, you'd never believe it till you go aboard. Thirty-nine feet over all, twelve feet beam and four feet draught, built in 1923. Head room six feet four, with box springs in main cabin berths and spring berths in state room forward. Mahogany and white cabin, with built-in dressers, and the most airy cabin you ever stepped into. She does an honest 8 knots under power with her powerful Stearns motor and six knots under sail only in a real breeze. Come and see her and you won't let her get away from you. Inspectible; near New York.

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HUNTINGTON, N. Y.

Established 1903

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Blue Cloth, with Owner's Name on Cover..... \$14.00

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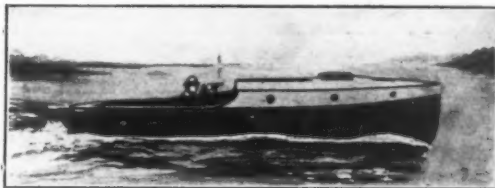
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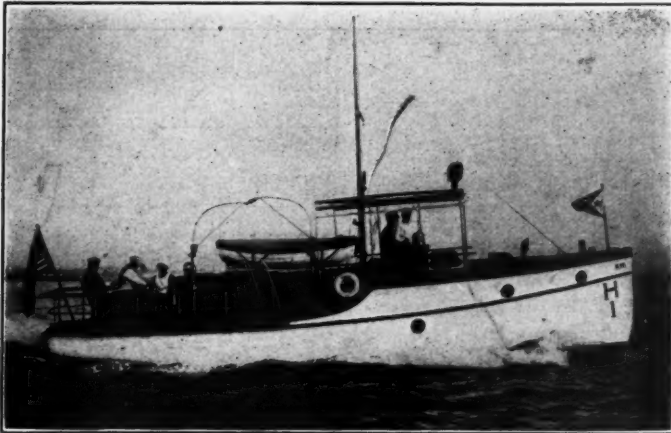
Please Order Early



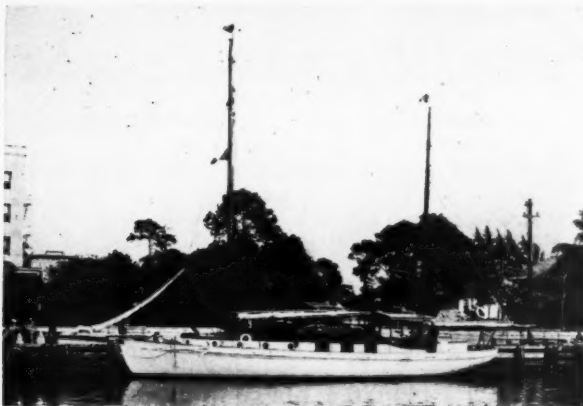
### 27 and 30 FOOT CABIN LAUNCHES

These cruising cabin launches are developed from years of experience in actual use. They are the highest type of design and construction, very able and seaworthy and are handsomely finished in mahogany. A large comfortable cockpit and a good sized cabin with bunks on each side make them well adapted for either day service or cruising.

MARBLEHEAD YACHT YARDS, INC.  
Marblehead, Massachusetts.



**FOR SALE**—Trunk cabin cruiser Kodak. Prize winner. 34'x9'. Sterling engine, Model 2-B. Fully equipped. Price, \$2,500.00. A. Z. Juskowitz, World Examining Works, 118 West 22nd Street, New York.



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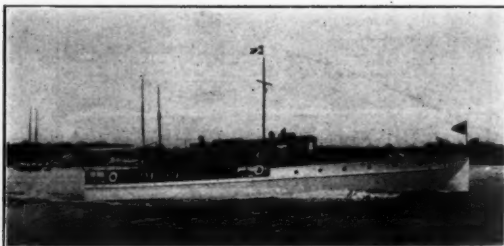
Charter this luxurious cruising yawl for your vacation. Comfortable cabin accommodations, large main saloon sumptuously furnished, seating six for meals cooked by a first class cook. Roomy cockpit with wicker chairs—separate crew quarters—radio, phonograph, library—in fact the ideal yacht for a cruise. Over eight miles per hour under power alone, and runs away from the best with sail. Room 1613—15 William Street—New York.

#### FOR SALE OR RENT

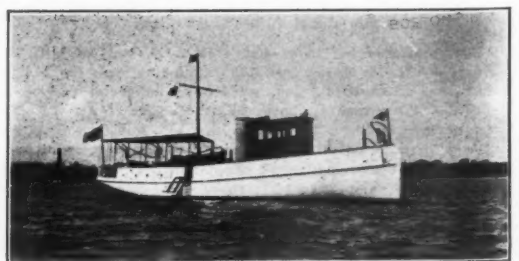
Complete Boat Works and Machine Shop with 242 feet deep water frontage near New York. **BEST LOCATION FOR BUSINESS IN AMERICA.** Between two steamer landings of New York Boats. Within two blocks of two railroad stations and near several steamers. Easily, quickly accessible by rail, steamers, or magnificent concrete roads for motorists. Within few miles richest clientele in the world. Owner retiring. Last occupant made huge profits. Very low rental or sale price, long term payments to builder of very fast boats. Address Paine, 36 Clinton St. Newark, N. J.

**BARGAIN**—Durkee electric lighted compasses, dashboard type, in original boxes; also distance type thermometers, \$7.50 each. Oil and air pressure gauges, \$1.00. Heath Airplane Co., 2856 Broadway, Chicago, Ill.

**24-FT. FAST RUNABOUT**—Hacker design, mahogany varnished, 4-cylinder, 40-60 H.P. Model F-6, Scripps motor—all new. N. Jacobsen, 783 Warburton Ave., Yonkers, N. Y.



No. 1592—For Sale—The most attractive Herreshoff Launch on the market. 66' x 11' 2" x 3'. Highest grade construction and finish. Exceptionally large bridge and after decks. Also very large double stateroom and good main cabin. Twin engines overhauled each year. Speed 14 to 19 knots. Has had best possible care. For further particulars apply John G. Alden, 148 State Street, Boston, Mass.



No. 2755—For Sale—at low price, power cruiser 78' x 13' 6" x 6'; large main cabin and two single staterooms aft; roomy pilot house; standard motor used only a few months; Delco lighting set, electric windlass, etc., very roomy deck space. For sale to settle an estate. Apply: John G. Alden, 148 State Street, Boston, Mass.

Advertising Index will be found on page 166



**FOR SALE**—Brand new 48-foot Combination Cruiser-Houseboat. Five large rooms, two toilets and bath. Best built and excellent seaboard. With or without engine. Bargain for quick buyer. M. Mela, Barretto Point, Bronx, New York City (foot of Tiffany Street).

## WANTED

Equipped express cruiser up to \$25,000 value, light draft, speed 20 miles or better; prefer 60 foot or less. Your cruiser up to \$25,000 will buy \$35,000 cash value equity in one of the finest smaller holdings in Chicago Gold Coast property. Exceptional in every way, near lake and heart of most exclusive club and hotel section. Boat and property figured at cash value and difference paid in cash will permit you to make excellent profit and will permit owner to comply with doctors' ordered health cruise. Accept delivery New York, Philadelphia, or Southern ports. Immediate action only. Address Ace, care Major George F. Lee, Adventurers' Club, Chicago.

**FOR SALE**—One 26-ft. runabout hull without motor; first-class condition; price reasonable. Write for description and price. Dunphy Boat Mfg. Co., Eau Claire, Wis.

**KERMATH**—Model 50. Complete, ready to install. Full electrical equipment, including battery and wheel, 22-14 in. Address L. S. Ferris, 332 Wood Ave., Bridgeport, Conn.

**"MARINER'S HANDBOOK,"** latest edition, covers Navigation, Reckoning, Construction, Signals, Etc. 425 Pages, 140 Illustrations, 9 Colored Plates. Cloth bound. Price \$1.00. Gilson Company, Niles, Mich.

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Chesapeake Bay Rig Sloop, 38x10x3-ft. draught, built of cedar and of solid timber; Sterling motor, 30-45 H.P., 5½x6-inch stroke. Boat is 5 years old, has 20-ft. cabin, 4 berths, and equipment is in perfect condition. Price, \$1,700.00. Seen Raig, North Beach, Flushing Bay, or write F. Hurtig, 29 Center St., Little Ferry, N. J.

**THE SHOP of the Yachtmen.** Highest quality silverware, chinaware, linen, imported foods and other equipment. Write for Booklet G. C. Mitchell, Jr., 126 Sanford St., East Orange, N. J.

**WANTED**—Fifty boat builders and joiner workers with experience in yacht work. Steady work at good wages. Dachel-Carter Boat Co. Inc., Benton Harbor, Michigan.

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Thousands of our rebuilt machines are giving honest, efficient and reliable service daily. Your boat will soon be in commission—our selection now is most complete.

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## FOR SALE—Gentleman's High Speed Runabout

### Hacker V-Bottom Type—Mahogany Construction

This beautiful mahogany runabout will satisfy your desire for speed. It is one of the most successful speedsters designed by John L. Hacker. It is a little more than one year old, seldom used, and is practically new—looks as good as the day it was launched. Thoroughly seaworthy and fully equipped; a good wholesome, practical boat, not merely a racer. A Sterling Sea Gull 150 H.P. engine gives her a speed of 35 miles an hour. The engine is mechanically perfect. Boat can be seen, inspected and delivered immediately. This boat is offered at a price so low as to make it a high-grade bargain for some one who knows real boat value. Owner buying larger boat. Address: Box 132, MoToR BoatinG.

**FOR SALE**—Beautiful, high grade Mahogany V Bottom Family runabout. Length 32½ feet, beam 7 feet. Forward and aft cockpit, comfortably carry ten persons. Both cockpits have disappearing wind shields. Forward cockpit has automobile top. Engine is a 200 H.P. marine type Hall Scott located amidships. Speed approximately 35 miles per hour. This boat never used on salt water. Built by the Albany Boat Corporation and used comparatively little, on Lake George. Fully equipped in every detail and could not be duplicated today for less than \$9,000.00. This is a wonderful opportunity for anyone desiring to purchase an exceptionally high grade outfit. Both boat and engine are in absolutely perfect condition. This outfit has seen so little service that it would be very hard to distinguish it from new. An ideal boat, which inspection will reveal. May be inspected in New York. Price for quick sale \$3,500.00. M. C. Kimball, Palace Blvd., Bayside, L. I. Phone: Bayside 1267.

#### TRIMOUNT WHISTLE BLOWER OUTFITS

Friction contact with engine flywheel. 3 sizes.

A tremendous success—a high-speed bronze Power Pump for \$15.00.

TRIMOUNT ROTARY POWER CO.  
294 Whiting Ave., East Dedham, Mass.

#### TRIMOUNT ROTARY HAND BILGE PUMPS

All bronze composition. Section lift 6 to 20 feet. 3 sizes.

**FOR SALE**: Cruising houseboat, 66 x 16 x 3.6. was thoroughly overhauled and rebuilt this year. Two new Lathrop 40 H.P. motors installed at a cost of \$3,500 and yet never used. Speed 10 miles. Entire new outfit of bedding, mattresses and springs; new galley stove, icebox, silver dishes, etc. Accommodations probably not equaled by any boat of her size afloat, with four double and one single staterooms. Running water and dresser in every room; two baths and three toilets. Social hall and dining room on the upper deck, enabling cook to serve meals without aid of waiter. New electric generating plant and batteries. Boat screened throughout. SACRIFICE \$5,000. Mitchell, 421 W. 55th St., New York City. 3-25

**CHIEF STEWARD**—Experienced and reliable. References. Wants position with yacht owner. P. O. Box 601, Philadelphia, Pa.

**FOR SALE**—Two-cylinder two-cycle 8 h.p. Gray motor with reverse gear, coils and generator. Good condition. Price, \$100.00. Box 142, MoToR BoatinG.

**FOR SALE**—21-Foot Atlantic Dory; half cabin; new curtains, and Red Wing motor, 10-14 H.P.; used two months; perfect condition, \$350.00. L. E. Wightman, 1448 Dean St., Brooklyn, N. Y.

For Sale—Standard engine 32-37 H.P. complete propeller outfit; condition guaranteed. Apply Edward vom Hofe & Co., 92 Fulton St., New York City.

#### SUBCHASER HULL

110x16x5

Cedar Planking. Best Construction, five steel Bulkheads, 3,000 gallon tanks. Bilges newly floored. \$1,500.00 spent to remove old Government Equipment and put in First Class condition for installing Diesel Motor. Would make splendid houseboat without motor. Owner cannot use and will sacrifice to Quick Buyer for \$1,500.00 or Best Offer. Is located in New York waters and can be seen by appointment. Write G. D. Richardson, Elks Club, Elizabeth, N. J.

**STERLING** 20-35 H.P., 4¼" bore by 5½" stroke, with Bosch magneto; completely overhauled by us and in absolutely perfect condition throughout, \$600. Kermath Mfg. Co., Detroit, Michigan.

5 Cell Edison Storage Battery, 6¼"x30"x14¼" overall, Type A-8, 300 ampere hour capacity. Good for any 6 volt circuit. Good as new. Cost new today, \$190.00; will sell for \$90.00 cash with order. C. H. Oakley, Box 501, Trenton, N. J.

**FOR SALE**—36 x 8 full glass cabin complete in every detail, electrically equipped. 4-cylinder 18-25 Sterling engine just overhauled, one man control. Will sell for \$1,250.00 or trade in on a 38 or 40 foot bridge or raised deck cruiser. Address W. E. Hawkins, 44 East Heath Street, Baltimore, Md.



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EAST GREENWICH, R. I.

STORAGE MARINE RAILWAY REPAIRS

## Yard and Shop

(Continued from page 46)

Because of the recent Government regulations, an approved type of fire extinguisher is now required in every motor boat before a license will be granted, and as the Pyrene hand fire extinguisher meets to the fullest the Government regulations, leading motor boat manufacturers are making this extinguisher part of their standard equipment.

The Pyrene hand fire extinguisher is made in 1 quart and 1½ quart sizes.

In addition to the Pyrene hand fire extinguisher, the Pyrene Manufacturing Company are manufacturers of Phomene, foam type, 2½-gallon extinguisher. This extinguisher when inverted generates approximately 20 gallons fire quenching foam. It was developed to take care of the larger oil fire hazards, thus affording ample fire protection and safety to oil-burning motor boats.

## Improvements in Steering Gear

Kainer & Company of Chicago, who have been manufacturing boat steering mechanisms for many years, have made some radical improvements in their boat steering gear which increase its value and efficiency greatly. The steerer is adjustable to different angles, which adapts it to easy adjustment to suit the bulkhead of the boat. It is so arranged that the angle of the steerer may be so adjusted to the position of the boat to suit the personal desires of the user. The steering column is of larger size than previously, with a heavy tube inside the main column, to which the drum is keyed. The steering wheel itself is of walnut, with an inserted metal spider, and is very finely finished. Their special catalog describing this, and other specialties, will be mailed to readers of *MOTOR BOATING* who write to Kainer & Company at 761 Mather Street, Chicago, Illinois.

(Continued on page 134)

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White or brown duck with pure rubber non-slip sole. Hard felt  
 innersole that will not curl or draw the feet. This new Lace-to-  
 Toe style is latest and most popular for boating, camping,  
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 made shoes with fresh, live soles.

Send for catalog and free sample of this  
 wonderful sole; also duck and felt innersole.  
 Price, Men's brown or white, \$2.40; Boys',  
 \$2.20. Postage free.

**L. L. BEAN**

20 Main Street

Freeport, Maine



\$2.40

Postage Prepaid

# HALL-SCOTT

**LM SERIES**  
(Liberty Type)  
Bore, 5"; Stroke, 7"  
Four Cylinders, 125 H.P.  
Weight, 1165 lbs.  
Six Cylinders, 200 H.P.  
Weight, 1500 lbs.



**HSM SERIES**  
(Fageol Type)  
Bore, 4 1/4"; Stroke, 5 1/2"  
Four Cylinders, 50-70 H.P.  
Weight, 1250 lbs.  
Six Cylinders, 75-100 H.P.  
Weight, 1500 lbs.

The 1925 Hall-Scott Marine Engine,  
Model LM-6. 200 H.P. Six cylinders.

## Further Refined for 1925

HALL-SCOTT engineering has produced notable refinements in the 1925 series LM-6 marine engine. It is the same 5" x 7" bore and stroke, rated 200 H.P. at 1700 R.P.M., but minor changes add materially to the efficiency and convenience of installation and operation.

A new system of carburetion has been developed by Col. E. J. Hall in collaboration with Harry Miller of Los Angeles, famous racing car builder. The intake manifold

is hot water jacketed in a unique way. Crankcase breathers lead to the carburetor intake, eliminating all possibility of oil smoke or odor in the engine room. A heavier crankshaft avoids torsional vibration. The water circulating pump has larger capacity and runs at lower speed. An improved housing is provided for overhead camshaft and rocker arms. Spark and throttle control attaching levers are more conveniently arranged, and the emergency hand starting lever has been rearranged.

*Write for descriptive literature on the Series LM and HSM Hall-Scott engines. Both series furnished in 4 and 6 cylinder models.*

*These engines are on continuous display at*

## HALL-SCOTT MOTOR CAR CO.

**EASTERN BRANCH: 461 EIGHTH AVE., AT 33RD ST., NEW YORK, N. Y.**

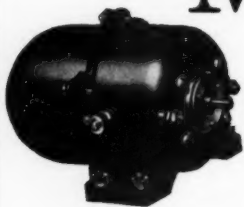
All models of Hall-Scott Marine Engines are carried in stock at Eastern warehouse for immediate delivery.



**Factory:**  
**Berkeley,**  
**California**

"Perse," the first of the 1925 model standardized Sea Sled Runabouts, 27' 6" x 6' 3". Owned by O. Frank Woodward of New York and Palm Beach. The "Perse" attains a speed of better than 42 miles per hour with its Hall-Scott LM-6 engine.

# KNOTS R·P·M M·P·H



By **WESTON**  
**44 Tachometer**

**E**XHAUSTIVE tests both in the laboratory and in actual service have satisfied the designers of this Tachometer that it fully meets Weston requirements—for durability and accuracy.

In developing this instrument to record Knots, Revolutions per minute, or Miles per hour — whether in Marine, Manufacturing or Transportation use—the cost has been kept extremely low.

The Model 44 Speed Indicator is used with standard Weston, indicating instruments adapted for the specific purpose in mind. Write for Bulletin 3004 for complete details and the possibilities of usefulness of this instrument in many fields.

**WESTON ELECTRICAL  
INSTRUMENT CORP.**  
28 Weston Ave., Newark, N. J.



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**WESTON**  
Pioneers since 1888



## The Starboard Watch

(Continued from page 44)

and Vice-Commodore Frederick Blossom of the Sarasota Yacht Club, the Ballard Brothers and F. E. Demarest of the St. Petersburg Power Boat Association, and Commodore Simmons of the Safety Harbor Yacht Club for the success of the combined programs. Pop Tissot of Cincinnati was on hand to see that the boats were started on time. Many visiting yachtsmen from other parts of the country were present and the West Coast boys demonstrated that hospitality for which they have become noted. These races were held under the auspices of the Florida West Coast Power Boat Association. Next winter this Association will hold a National Meet, coming between the Palm Beach and the Miami Races.

\* \* \*

The entry of Tampa-Maid from the Davis Island Yacht Club of Tampa for the Gold Challenge Race at Manhasset Bay next August brings the entry list up to fourteen, and there is a possibility of two or three more entries before the time limit is up.

\* \* \*

Commodore Irsch gave some of us a most delightful outing on Tampa Bay late in March.

Ira Hand and I were stopping at the Tampa Bay Hotel, that eight-million-dollar creation of Commodore H. B. Plant, which is set in a grove of palm trees, and faces the Hillsboro River, when the telephone rang and the Commodore asked if we would like to take a run down the bay and have a fish dinner. Would we? You said it! So in a few minutes the Commodore arrived in one of his Bearcats and we started.

The river winds down into Hillsboro Bay, passing Davis Island, with its Yacht Club and Yacht Basin in the process of construction, and then into the bay. It was a beautiful day and we bowled along, ten or twelve miles, and then followed the channel marks up in the Ala Fia River, the mouth of which is filled with a large number of little islands covered with palm trees and live oaks.

We landed at a pier and the Commodore summoned Captain Bob Nichols, who lives in a bungalow located on the shore line. Captain Bob managed to produce a half dozen fish of the red snapper variety, which he proceeded to cook for us along with other good things. We were served on a table out under the palm trees on the edge of the river and just as we were sitting down, who should blow in but Art Utz, who had been inquiring for us and drove down in a motor car.

After eating our fill of the most delicious fish, we lolled around under the palms for an hour or so and then proceeded back to town, feeling very comfortable and very happy over a most delightful outing.

\* \* \*

Don't you remember when you were a youngster, how good those hard-shelled clams, now called little necks and cherry-stones, tasted when you swam off after dark to the clam float carrying a case knife in your teeth and proceeded to eat your fill?

The flavor was a vast improvement to that of the clams you could buy at the fish-house for a cent a piece. Down at Keyport, New Jersey, twenty years ago there was a fleet of from fifty to sixty clam sloops which came into the harbor every night with the day's catch and they all unloaded into large floats, from which on the following day they were gathered up and shipped to market. Today, due to the fact that so many large cities are polluting the rivers emptying into Raritan Bay, the fleet has entirely disappeared and the clam and oyster business in that location has been practically destroyed.

This matter of pollution of the rivers and bays with sewage and obstructions of driftwood is becoming a most serious problem, and very vigorous and drastic action will undoubtedly have to be taken if we still wish to have our waters in such condition that they may be navigated by anything but ocean liners and tugs. This was brought forcibly to our attention when it was found necessary to take the Gold Cup Races away from the otherwise most logical and desirable point, the Hudson River, solely on account of the above mentioned difficulties.

## An Interesting Hudson River Race

The Colonial Yacht Club is planning a cruiser race to take place on the 21st of June from New York to Bear Mountain and return. This race is to be a sanctioned event, and to be run strictly in accordance with the rules of the American Power Boat Association of 1925. Commodore J. Heilner has presented a very handsome trophy, which will be competed for in this race, which is to be open to cruisers and fast cruisers as defined by the new rules. In selecting this day for the race, the committee in charge have been guided by the fact that the tide will be favorable in both directions of the course, and boats competing will be sailing with this advantage practically throughout the entire race. The Chairman of the Regatta Committee, H. C. Foster, will be glad to supply details.



# Announcing RADIOLA

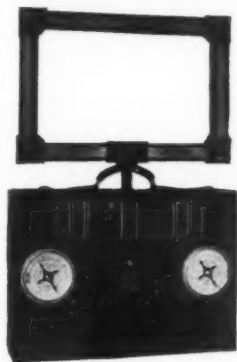
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### PORTABLE

*Two models: Radiola 24 and Radiola 26.*

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**Radiola 24**, when closed up for carrying, is a smart suitcase of genuine black cowhide, in cobra grain. It has a built-in loud-speaker, and with the batteries inside, it weighs about 38 pounds. With six Radiotrons UV-199—entirely complete except batteries. \$195

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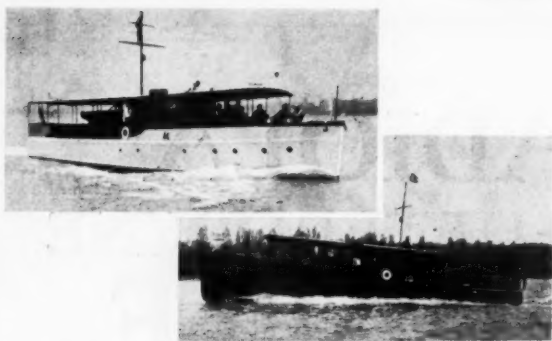
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**F**OR as little as \$85.00 you can have plenty of running water on your boat—in the galley—sanitary convenience—wherever a steady stream of water under pressure is needed.

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The largest capacity for the price on the market. Compact in size (10" wide, 26" long, 22" high), takes up little space, making it very desirable for boats where space is at a premium. Can be placed overhead on bracket attached to bulkhead if desired. Weight 115 pounds complete. Pumping capacity a full 200 gallons per hour. Fully automatic; safe; dependable.

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## "Dayton" Pumps

*Make the water do the running*

## Huck Says Good Bye Miami

(Continued from page 17)

a Chance Race and somebody what was not from Detroit gets up, timid-like, and says, "I'll bite—what is a Chance Race?" Schantz, Kotcher and six other fellers from Detroit, they tells him in chorus, so that you understands nothing, but at that point we gives up; you puts it to vote, and it is unanimous. Then everybody, they is satisfied and the meeting it breaks up with everything arranged just the way you has it all arranged anyways, before the meeting.

The only suggestion that I has to make is, why bother to have the Midwinter Regatta at Miami anyways? Why not have it in Detroit next March, in a bathtub, and give the prizes to the fellers what could make the most speeches. It would save a lot of time and money. Then we could all come down here afterwards and get the air.

After the meeting I sees Ira Hand talking serious-like to a feller what was a reporter and trying to find out what it was all about. The reporter says, "Is you the Hand of V bottom fame?" "No," says Ira, "I is Hand with the round bottom," and the feller he walks away, puzzled-like, figuring that Ira is sort of nuts, which it is a fact.

Then they all stampedes down to the Casino and goes in swimming and pretty soon they is all talking with some of them sunburned babies, what splashes around so pretty-like, and their minds, they was no longer on the race, they wasn't. I gets so exhausted with all this social swirl that I goes up to Palm Beach for the day to get a rest. Everything it was going all right and I was sitting out on the piazza of the Poincianna, when somebody gets careless and sets the Breakers on fire, and of course the young woman what I was accompanying, she has to be entertained and so we rushes over and gets there just as they is starting to throw wardrobe trunks out of the windows.

I never sees such heroism. While the roof was burning, a lot of guys was pushing the trunks out of the windows. The trunks they would land on the corners and bust open and all the clothes would blow back into the flames. Otherwise than that they done great work, but I did see one guy carry a case of genuine Scotch whiskey out in his arms, to safety, but before he could put it down on the ground, twelve fellers each grabbed a bottle and was off like the wind. Now at that time, that famous yachtsman, Harry Greening, he was stopping at the Breakers. When he comes back from playing golf, he finds that the hotel, it had went up and all his clothes they was gone and all his money except two dollars what he had in his golf pants. Now you well knows, Chap, that they is nothing what you can buy in Palm Beach for two dollars, but Harry he is a optimist and so he starts to do some window shopping and he comes to a store what was having a mark-down on canes. He goes in and he buys a stick for two dollars. This, it makes him look so respectable-like that he walks into another store and buys eight hundred dollars worth of clothing on credit. The moral of this, it is, that you gets away with anything if you looks respectable.

After that, the Palm Hotel, it gets afire too, and we rushes down there so we doesn't miss nothing, but by that time it was getting dark and I steps over a joint in a fire hose, which it leaks and a stream it shoots aways up my trouser leg, and after that I loses interest and I says, "Let's go," which we done, only we loses the way back to Miami and doesn't get home until about two A. M. and then we has to sit up half the rest of the night and tell what a hero I was.

Well, the next day the races they starts. Now just what happens, I doesn't quite know. You appoints me a judge at the turn, opposite the Flamingo, and I anchors Kex out there. That puts me off by myself where they isn't any danger of my saying anything while you is trying to read the stop watch, like what I done last year. I guess my watch, it musta been a little bit slow, because just as I starts to row out from the dock, a gun goes off and a Coast Guard boat, it yells at me. I tells them where to go because I is a judge at the turn and keeps on rowing. I gets to the turn just as Gar Wood and Webb Jay does. I doesn't know whether they passes by me or over me, because when I comes to the surface, they was half ways around the course, and I just gets in behind the buoy by the time they is there again. So I doesn't know whether they cuts the buoy the first time or not.

After I gets aboard, I doesn't see anything anyways, partly because I has to go below and put on some dry clothes and partly because they was so many patrol boats flying officious flags in the way, that I never sees the buoys and only once in awhile the boats. After awhile, though, I notes that Webb Jay, he has broke down, and so Gar Wood he has his own way, as usual, and it don't matter which side they went.

I doesn't remember anything else but the Chance Race. After this when Schantz proposes a Chance Race, I am going to stand up and cheer in the first place. It was the best race of the

(Continued on page 72)



## MIAMI BEACH

The Land of Perpetual Summer

THERE are many bright spots in God's country but none compare with the glories of Miami Beach. If Ponce de Leon lived today, would he not herald America's fastest growing all year around resort as the "fountain of youth"? Here everyone is carefree. It is summer every day and the morrows will be the same. In the offing, from the broad spans of the country's most famed beach, are seen the glittering waters of the Gulf Stream, and nearby, riding at anchor, are the majestic yachts of the 1925 Ponce de Leons.

Come to Miami Beach. Visit this modern community of tropical charm; partake of its hospitality. You will relish its unrivaled facilities for play as well as rest. The hotel accommodations are irreproachable. Plan now to spend next winter at the Nautilus, Flamingo or Lincoln Hotels. Many furnished bungalows are available with hotel service for those who prefer home atmosphere.

For data and descriptive literature address

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Niagara "Special" 15 H.P. 4 cycle.

## ENDURANCE

**T**HE capacity to endure is the test of the quality of material and design of a marine engine. Its ability to keep up the pace hour after hour, without overheating, without faltering and without "nursing." That stamina characteristic of Niagara Marine Motors is found in the Niagara "Special"—the huskiest motor of its size built.

It's an engine whose upkeep is by far the lowest of any on the market. It is simple to operate and is very accessible, light in weight and the most powerful in its class.

**There is a Niagara for Every  
Type of Boat  
Medium duty, Four cycle**

**One, two, four and six  
cylinders, 5 to 120 H.P.**

See pages 150-93 of this issue for other Niagara announcements.

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*Be sure to state the power you are interested in and the size of your hull.*

BOAT BUILDERS, DEALERS and AGENTS—A popular motor is always the best seller—Niagaras are popular. Write today for full particulars.

**NIAGARA MOTORS CORP.**

Dunkirk

BOX 300

New York

## Huck Says Good Bye Miami

(Continued from page 70)

Regatta. They was everything in it from a outboard motor to a Baby Gar. The big boats, they runs into the small boats; the fast ones, they drowned out the small ones. Then one of them Biscayne Babies, it started to sink, and the driver, he climbed up on the bow, just the way I crawls up on the neck of a horse when I tries to ride, and the crowd, it gets a swell thrill. This, it was hardly over, before one of the speed boats, it takes fire and they is a elegant bunch of smoke and flame shoots up. One hero he runs his boat up alongside of her, just as the fireboat it runs up along the other side. The water, it was rougher'n the devil. They gets the chemical tanks going and the first stream it hits the feller opposite square in the eye. By this time, half the boats in the Chance Race, they has flocked around and everybody gets a dose of yellow goozum out of the fire extinguisher. All this time the driver of the burning boat, he sits out on the back, over the gasoline tank, I supposes, so he will get a free ride ashore when the tank it busts. But they fools him. The fireboat, it gets into close quarters and they not only puts the fire out, but the boat it runs in the race the next day, better than ever before! Now by this, I doesn't suggest that you sets your boat afire, if you wants to tune up the engine, as they tells me, that if you burns a hole through the bottom, the boat it is apt to sink.

All things considered, I hands you a certificate for running a swell lot of races. The only thing I suggests is that the next time you arranges to have a Chance Race every day, has a lot more boats burn up and makes it a condition that the drivers all run into each other, at least every lap, because it is a helluva lot more fun watching this kind of stuff. These things they could be accomplished by having a weak link inserted in every steering gear, that would let go on the turn, sooner or later, and a time fuse connected with every carbureter, that would set off a swell fire at a time unknown to the driver. Then you and I, we could go fifty-fifty on the movie rights and make a elegant bunch of coin.

## Don't Fly the Yacht Ensign Ashore

(Continued from page 14)

Many of our yacht clubs have adopted the practice of flying the Yacht Ensign on their shore staffs and flagpoles. This practice is decidedly in error and should be abandoned. The law, as well as yacht etiquette, is perfectly clear on the point that only the American Flag should be flown ashore.

In a recent communication sent us by the Secretary of the Navy, he emphatically states that the Yacht Ensign is not flown ashore, and, in fact, is so emphatic upon this point that he entirely ignores any suggestions as to proper hoist on shore where the Yacht Ensign may be flown.

On the tables shown on these pages will be found the proper practice for flying the Club Burgee, the United States Flag, and various other flags, as well as the Flag Officer's Signal, the Coast Signals, Jack, and other flags which it might be necessary or desirable from time to time to display from the Yacht Club station.

It will be seen that, generally speaking, the Club Burgee should always be flown on the masthead and that the U. S. or National Flag should be flown either from the gaff or yard arm. The only instances where the U. S. flag is flown at the masthead is where a staff or flagpole is rigged without yard or gaff. In this case, the U. S. flag is flown from the masthead and the Burgee just below it, but preferably on another hoist.

A study of the data on these pages, which are supplied by the Secretary of the Navy at our request, should be examined carefully by all yacht club officials and orders issued by them that this practice be followed absolutely during the coming yachting season.

## An Interesting Letter

An enthusiastic user of Kermath engines writes to the Kermath Company as follows: "A well known kodak manufacturing company uses these words in advertising their instruments: If it is not an Eastman it is not a Kodak. I am of the opinion that this is equally true of the marine motor; if it is not a Kermath, it is not a motor."

"I have used a number of different makes, but have never seen one that I regard as anywhere equal to the Kermath. It is my pleasure to own a 10-14 h.p. for the past twelve months. I have used it frequently and it has never given the slightest trouble, always goes, very economical in the use of gas and runs like a good clock."

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BISCAYNE BABIES

SCRIPPS  
POWERED

# The Greatest Motor Boat Race of the Age

*Powered Exclusively by*

**SCRIPPS**  
**F-6**

THE race of the Biscayne Babies at Miami Beach is now a cold fact in history. But, oh! How many times will that cold fact be brought back to life—the contest raced over again in the discussions of all who love and admire the sport. It was a thrilling race, because it was a true test of seamanship and more exciting because each of the craft was identical in every detail and carried a like amount of weight.



**PURDY  
BUILT****BISCAYNE BABIES****SCRIPPS  
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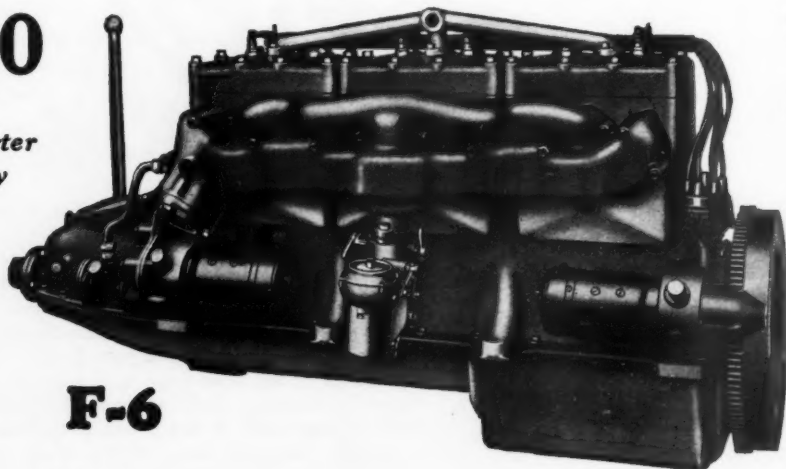
# Overwhelming proof

## *Scripps F-6—the Engine in All the Biscayne Babies*

**W**HEN Carl G. Fisher conceived the idea of a real one-design-class motor boat race with professional automobile racing drivers at the wheels he inaugurated a new era in motor boat racing. It was radical, new, untried—an expensive experiment perhaps. But Mr. Fisher carried out his idea and ordered eleven boats identically alike, powered with Scripps F-6 engines, the engine sensation of the day.

### \$1250

*with  
Electric Starter  
and Battery*



### F-6

**High Speed  
100 H.P.**

**Low Speed  
50 H.P.**

**Bore 3 $\frac{3}{4}$ "  
Stroke 5"  
Weight 750 lbs.**

In the race the combined distance covered by the Biscayne Babies was over 750 miles, and the average speed was above 40 miles per hour. No engine trouble was experienced by any of the drivers, in spite of the fact that the boats were not turned over to them until one hour before the race. In other words, in an hour's time the drivers, none of whom had ever driven a high powered boat before, became fully acquainted with the F-6 and the fine points of boat racing.

The 100% perfect score made by all the Scripps engines in this race proves beyond the slightest doubt that the Scripps F-6 is the most reliable Six today in the 100 H.P. class. As a consequence the Purdy Boat Works is now building twenty more Biscayne Babies to be raced at New York this summer, all powered with this same wonderful engine.

We don't want you to get the impression that the F-6 is a racing engine, for it is not. It is a sturdily built power plant designed to give service indefinitely in cruisers and runabouts, as well as speed boats.





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**BISCAYNE BABIES**

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# of **SCRIPPS POWER**

## *Scripps F-4 Has the Same High Quality and Advanced Features as the F-6*

**T**HE F-6 is a development of the well known Scripps F-4, a marvel in marine engine design, and the fastest selling high class four on the market. It is light in weight, compact and clean cut in appearance, and tremendously powerful, with a speed range of 500 to 2600 R.P.M. All Scripps engines give you rare value—it matters not from what angle you appraise them.

**High Speed  
40-60 H.P.**

**Medium  
Duty  
15-40 H.P.**

**Bore 3 $\frac{3}{4}$ "  
Stroke 5"  
Weight 550 lbs.**



**F-4**

**\$750**

*with  
Electric Starter  
and Battery*

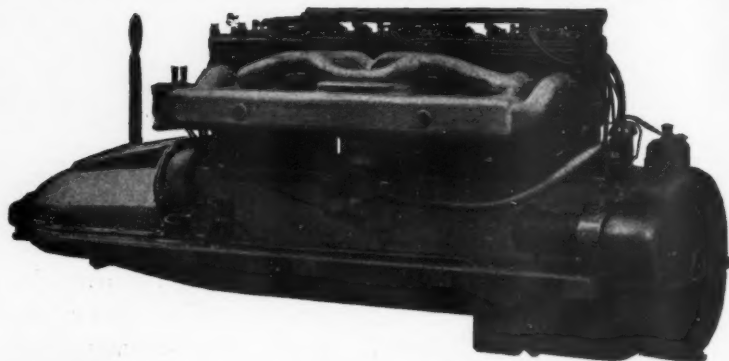
In these days of low grade gasoline nothing causes more difficulty than the conversion of this poor quality fuel into dry combustible gas. Scripps engineers have been foremost in finding the solution with improved intake and exhaust manifolds having gas passages of special contour. These are embodied in one unit with the exhaust completely water-jacketed and the intake properly and cleverly hot spotted. This one feature alone quickly convinces the user that Scripps motors surpass in power, economy, pick-up, controllability, low idling and trolling speeds.



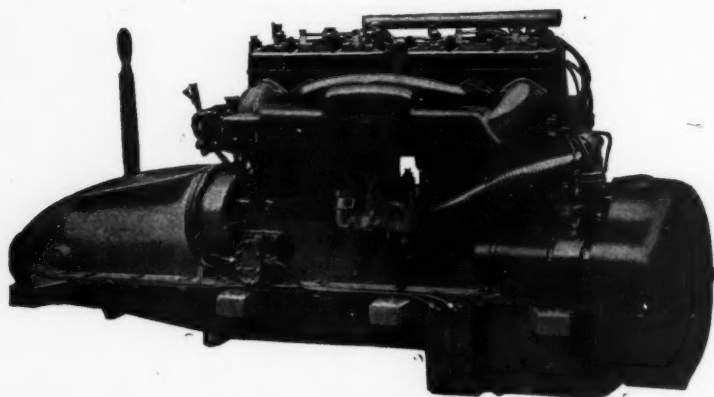
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## Other Famous SCRIPPS Engines

**T**HE Scripps E-6 is an all enclosed power plant giving steady, smooth and vibrationless power unmatched by any other marine motor of its class. It is especially adapted for boats up to 60 feet, and a twin installation in boats up to 75 feet provides a power plant that you would find difficult to excel.



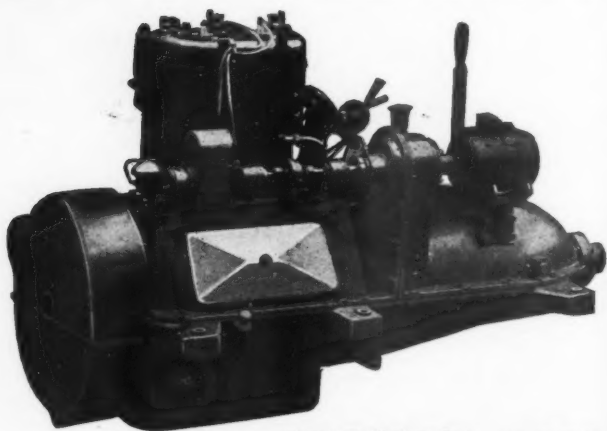
**E-6** 40-60 H.P. Medium Duty  
65-100 H.P. High Speed  
Including Electric Starter  
Bore  $4\frac{1}{2}$ ", Stroke 6"  
Weight 1,290 lbs. **\$1750**



**E-4** 30-45 H.P. Medium Duty  
45-70 H.P. High Speed  
Including Electric Starter  
Bore  $4\frac{1}{2}$ ", Stroke 6"  
Weight 975 lbs. **\$1250**

**T**HE baby of the Scripps family is the D-2, favored the world over as the desirable engine for heavily constructed work and fishing boats requiring from 10 to 18 H.P. It is as near automatic in operation as a motor can be. All wearing parts are of oversize design guaranteeing unusually long life.

*Write today for detailed information  
of Scripps Marine Motors.*



**D-2** 10-12 H.P. Medium Duty  
15-18 H.P. High Speed  
Including Electric Starter  
Bore  $4\frac{1}{2}$ ", Stroke 6"  
Weight 525 lbs. **\$650**

## SCRIPPS MOTOR COMPANY

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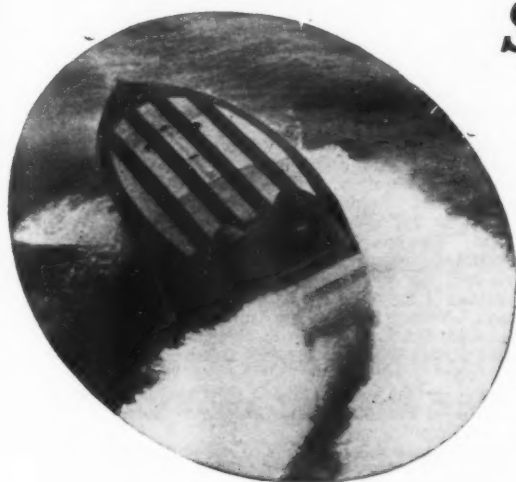
SCRIPPS  
POWERED

TRADE MARK

# CROSS

## REVERSE GEAR AND CLUTCH

The Boat—



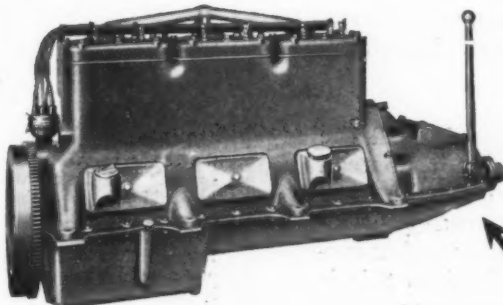
Standard  
**SCRIPPS Equipment**

SCRIPPS have pioneered achievement once more owing to their capacity for taking pains and leaving nothing to chance. They demanded a transmission worthy of the possibilities of their wonderful engine, and the most rigorous test proved to their satisfaction that **only one Reverse Gear** met their exacting demands—the New “Cross” Reverse Gear!

Hence, we too are elated over the wonderful showing of the boats in the Biscayne Baby Race and feel signally honored in sharing with Scripps the glory that is theirs.

The Engine—

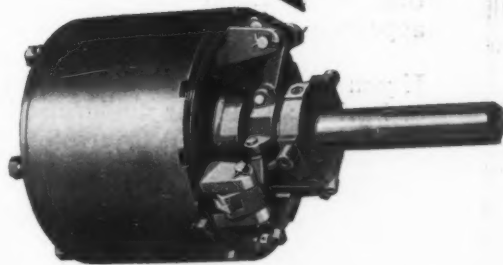
Model F-6 Scripps, the power plant of the Biscayne Babies. This engine develops over 100 H.P. at 2600 R.P.M. Average speed of boats in race was 40 M.P.H.



Here's the business end of the Scripps F-6 showing the housing enclosing the “Cross” Reverse Gear (illustrated below), a true neutral high efficiency gear in a high quality engine.

The Gear—

The “Cross” Reverse Gear guarantees longer life, more power to the propeller in both go-ahead and reverse positions, and an absolute neutral such as you find in a high quality automobile. The propeller positively cannot drag, and this combined with precision craftsmanship throughout the entire gear is responsible for the increased R.P.M. over other gears—often ranging as high as 10%. The shaft and gears are of high carbon chrome nickel steel, brake band is manganese bronze, while the ball-bearings are the finest in the world—large enough and strong enough to carry the prescribed load with a 4 to 1 safety margin. The case in enclosed models is of crank case aluminum, so designed and constructed that it is positively leak-proof and thereby forms an oil-bath in which the gear runs with almost frictionless ease.



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**CROSS GEAR & ENGINE COMPANY**  
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## Elgin Unit Control on the Biscayne Babies

**E**ACH boat entered in the Biscayne Baby race had an Elgin Unit Control on its dash board. Centered in one panel under glass the following instruments: Elgin Chronometric Tachometer, Ammeter, Oil Pressure Gauge, Motor Temperature Gauge, Air Gauge, for gasoline line, gave the drivers, at a glance, the actual condition of the power-plant.

The advantage of having all the instruments in one unit, instead of being scattered over the dash board is readily apparent—installation is easier, quicker and naturally costs less. Added to this is the precision and accuracy of the instruments and the elegance that only Elgin can give to appearance.

If you are building a new boat—or having an old one modernized—specify Elgin Unit Control.

For detailed specifications  
and prices address:

TACHOMETER DIVISION  
**Elgin National Watch Company**  
86 E. Randolph St. • Chicago, U. S. A.

## Cannonball, a Double-Ended Hydroplane

(Continued from page 37)

and at the stem should be mortised in and screw fastened; and in a similar manner at the stern and the step.

The clamps will be made of  $\frac{3}{4}$  by 2 inch spruce or yellow pine let into the edge of the frames and fastened with two  $1\frac{1}{2}$  inch number 10 screws. There will also be a shelf or riser inside under the ends of the deck beams made of  $1\frac{1}{4}$  by  $1\frac{1}{4}$  inch spruce. Both the latter members will be in a single length. If spruce or yellow pine is not available one might use Douglass fir, red wood, or Philippine mahogany. These are excellent woods for boat building.

The motor stringers will be made of  $1\frac{1}{4}$  by about 8 inch spruce and will, of course, be spaced so as to permit the flywheel of which every motor is installed to swing between. The stringers extend over frames 1 to 11 and should be fastened with one  $\frac{1}{4}$  inch diameter bolt to each frame. The bolts must extend through the floor timbers. Notice that at station 6 the floor timbers are doubled up, this being on account of the cut out under the reverse gear.

There will be bed logs bolted to the motor stringers for the length of the motor base and made to accommodate the dimensions of the base. These will be made of white oak about 2 by  $2\frac{1}{2}$  inches square. To keep the motor stringers in line there will be several pieces of  $\frac{3}{4}$  by 6 inch spruce set between with a long  $5/16$  inch bolt or rod each side to hold them in place.

The planking on the bottom will be laid in two layers, the inner being  $3/16$  inch cedar in 4 to 6 inch widths and laid diagonally to the keel, with the outer layer  $\frac{1}{4}$  inch thick; but laid fore and aft. Before the bottom is applied a bilge stringer made of  $\frac{5}{8}$  by  $2\frac{1}{2}$  inch oak will be run through the middle of each bilge. The inner layer of planking will be fastened with galvanized brads or small screws, just enough to hold the planks in place until the outer skin is laid. The ends at the keel and in the rabbet of the chine should be laid in marine glue or white lead paint. Where the planking lands on the frames it will be fastened with brass screws set at about 2 inch centers, and between the frames with copper tacks arranged to pierce the inner planking near its edges. As each of the fore and after planks are laid the surface between it and the diagonal planking should be well painted with liquid glue; muslin or canvas between will not be needed.

The planking on the sides will be laid in the same manner as the bottom with the exception of the stringer. Here the stringer will be fitted on the outside of the planking, having a long rivet through each frame and screws let into the stringer from the inside out. This outside stringer will be made of  $\frac{3}{4}$  by  $1\frac{1}{2}$  inch yellow pine and should be in a single length.

The deck beams will be made of  $\frac{3}{4}$  by 2 inch spruce and set on the same centers as the frames. There will be a doubling piece each end made of  $\frac{3}{4}$  by 6 inch spruce as shown. The deck is to be laid with  $\frac{1}{4}$  inch plywood if it is easily obtained and if not with  $\frac{1}{4}$  inch cedar or mahogany. In the latter case the seams must be backed with battens made of  $\frac{3}{4}$  by 2 inch spruce. The deck planks should not be over 7 inches in width. I should not cover the deck with canvas; just paint it several coats of some suitable color as a finish.

The coamings will be made of  $\frac{1}{2}$  by 6 inch white cedar fastened to a  $\frac{3}{4}$  by 2 inch spruce carlin as shown. The coamings should not project above the deck more than 2 inches. This is ample for attaching a spray cloth if one becomes necessary. There is a bulkhead between the motor compartment and the cockpit which should be made after the manner of the planking; two layers of  $\frac{1}{4}$  inch cedar laid diagonally. Across the top of this there will be a finishing cap made of  $\frac{3}{4}$  by  $1\frac{1}{4}$  inch oak. The motor controls are to be set up on the bulkhead.

Flooring should be laid each side of the motor and abreast it, using  $\frac{1}{2}$  by 4 inch spruce for the purpose. Similar flooring will also be laid in the cockpit. Always leave one piece of flooring so that it can be removed, using some suitable kind of catches to hold the loose piece down.

There will be one seat across the cockpit made of a  $\frac{3}{4}$  inch spruce board. This is to rest on a light rising each side as shown. There will be a fore and after piece extending from the seat through which to run the steering post, the lower end of the latter being screwed into a floor flange in the flooring. Fit a 6 inch locust drum on the post and connect up to the yoke on the rudder post as shown. The cockpit is roomy and the seat plenty wide enough to seat three in comfort.

The size of the fuel tanks will depend upon the amount of power installed, for the smaller motors mentioned I believe that two cylindrical gasoline tanks will answer very well. These should be located where shown and if tanks of greater capacity are fitted they should rest in about the same place.

The strut must be of the single leg type and not heavier or thicker than indicated. The base should be  $1\frac{1}{4}$  inches wide, 12

(Continued on page 82)

PURDY  
BUILT

BISCAYNE BABIES

SCRIPPS  
POWERED

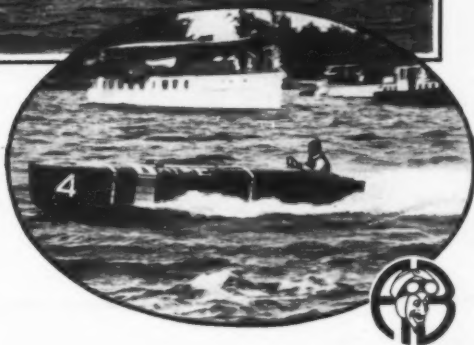


*Again—*

**Bosch Dependability  
Clearly Shown in ...  
Biscayne Baby Races**

The eleven boats of the Biscayne Baby class which made such a wonderful showing in the Miami Beach Regatta held recently were all equipped with Bosch Starting Motors, Generators and Battery Ignition Systems.

These units operated under a tremendous handicap, for every boat in the fleet at one time or another was partially filled with water, due to leaks caused by hitting submerged drift wood. The Bosch Electrical Units were frequently splashed with water thrown by spinning fly wheels, and were constantly swept by fly-



ing spray. In spite of these handicaps, the Bosch Units operated perfectly.

Whether you are buying—or selling—motor boats and engines, specify "Bosch Electrical Units" and be absolutely sure of long and dependable service.

The Bosch trademark is a guarantee of high quality and dependability.

**AMERICAN BOSCH  
MAGNETO CORPORATION**

Main Office and Works: Springfield, Mass.  
Branches: New York, Chicago, Detroit, San Francisco

**BOSCH**

**STARTERS - GENERATORS - IGNITION**

**PURDY  
BUILT**

**BISCAYNE BABIES**

**SCRIPPS  
POWERED**

## Latest U. S. Government Regulations Demand Fire Extinguishers

You cannot get a license to operate your motor boat unless it is equipped with a fire extinguisher that meets the new regulations of the U. S. Steamboat Inspection Service.

Sand and salt are no longer considered by the Government as adequate fire protection.

Equip your boat with Pyrene, the hand fire extinguisher, and you will meet to the fullest the Government Fire Regulations and secure without delay your license.

Remember, you, your family or your friends cannot run away from a fire in a motor boat when you are miles from shore. You are only safe when you have at hand the means to put out such a fire when it starts. Pyrene does this instantly.



In addition to the Pyrene 1 and 1½ quart hand fire extinguishers we make the Phomene 2½ gallon (Foam Type) extinguisher.

Pyrene Safety Products are sold by Ship Chandlers, Automobile and Hardware Dealers everywhere.

PYRENE MANUFACTURING CO.

*Makes Safety Certain*

NEWARK, N. J.



### THE BISCAYNE BABIES WERE EQUIPPED WITH OUR MARINE HARDWARE

IT is more convenient and satisfactory to order from one house—it means one order—one bill—one check—and your buying is finished. Regardless of what equipment your boat needs you can obtain it from us. Our prices are consistent with reasonableness and quality.



### PISTON RINGS

Standard Equipment in  
Scripps Marine Power Plants

Unlike other rings Detroit Piston Rings are so universally used because of their dependable simplicity. The dense skin formed in molding and cooling is retained on the inner surface when it reaches the motor.

The same dependable Detroit Ring which has been standard equipment with such manufacturers as Studebaker, Buick, Hupp, Maxwell, Dodge, Cleveland and others has again played a part in the making of racing history.

Write for our booklet,  
"Miles and Molecules."

**DETROIT PISTON RING CO.**

7409 Richmond Avenue

Detroit, Michigan



PURDY  
BUILT

BISCAYNE BABIES

SCRIPPS  
POWERED



# Gar Wood Commends Champion Spark Plugs

POSTAL TELEGRAPH - COMMERCIAL CABLES

**TELEGRAM**

Send the following Telegram, subject to the terms on back hereof, which are hereby agreed to.

To

CHAMPION SPARK PLUG CO.  
TOLEDO, OHIO

MIAMI BEACH, FLA.  
March 21, 1928

THANKS TO CHAMPION FOR THE WONDERFUL RESULTS OBTAINED  
FROM THE USE OF YOUR PLUGS IN WINNING THE FLORIDA ALLIANCE  
GOLD CUP RACE ALSO THE HORACE E. DODGE MEMORIAL TROPHY  
RACE BUT A PLUG WAS CHANGED AFTER CHAMPIONS WERE INSTALLED.

Gar Wood, Owner  
Olin Johnson, Mechanician.



**G**AR WOOD, most famous of all power boat pilots, is a thorough sportsman. Every article of equipment he uses is chosen definitely on merit.

Therefore, his telegram reproduced in this advertisement should be significant to every motor boat owner.

It is a tribute, also, to Champion dependability that every one of the "Biscayne Babies," equipped with Scripps F6 engines and driven by professional motor car racing drivers at the Miami races, were equipped with Champion spark plugs.

See that you too get the most out of your engine by installing a full set of new Champions this spring.

*There is a type and size for every engine. More than 95,000 dealers sell Champions. Champion X is 60 cents. Blue Box 75 cents.*

Champion Spark Plug Company, Toledo, Ohio  
Champion Spark Plug Company of Canada, Ltd. Windsor, Ont.



# CHAMPION

*Dependable for Every Engine*

# INTRA Valve Tappets

## Standard Equipment on SCRIPPS Engines



**Heads Guaranteed to Outlast  
Any Motor**

**V**ALVE tappets, push rods or cam followers (mushroom head type) are of the most vital importance in marine engines. Their importance is such that in the past replacement tappets have been unprocureable except through the engine manufacturer. In many cases on ordinary tappet replacement it is necessary to have a valve tappet especially made, or replace the entire block of the motor, and sometimes the guides.

Intra Valve Tappets eliminate these most troublesome replacements because they never wear out. They answer the long felt want of a tappet that will withstand severe service, function reliably and continuously and with durability equal to the ever-wearing parts of the better types of gasoline engines.

Intra Valve Tappets are now offered to the marine engine industry, after a long and thorough period of development has proven their very superior merits over all other types. A hardened and polished bevel plate of special alloy casting is securely inserted in the recessed head of the mushroom tappet. The tremendous hammering action of the cam cannot wear or loosen it.

Intra Valve Tappets are fully approved by automotive engineers and adopted as standard equipment by seven of America's leading automobile manufacturers. Furnished in oversize and standard sizes.

*Write today for descriptive literature.*

**Intra Steel Products Co.**  
2434 Bellevue Ave., Detroit, Michigan

## How I Would Design a Gold Cup Racer

(Continued from page 35)

as the rudder is submerged, thereby making it more effective as it lowers into deeper water. On straightaways the rudders can be lifted entirely out of water, thereby greatly reducing the very considerable drag usually found here. Note in Figs. 4 and 5 what takes place as the water flows by the hydro-foil sectioned rudder blade and the straight sectioned blade. The former is many times more efficient than the latter, and therefore can be of much less area and weight.

Fig. 6 is an eye opener. Since it is a well established fact that any propeller, either aeronautical or marine, will be most efficient if it pulls rather than pushes I should turn the motor, the struts and the propeller quite about and hitching, so to speak, the horse's head where his tail should be. This would locate the propeller under the middle of the hull. It would permit using a shaft of much less diameter because of the absence of thrust, and the presence of tension. It would be possible to use a cable laid wire rope for the shaft if desired which would be an automatic universal joint for its entire length. It would reduce the likelihood of flattening out the blades of the propeller, a condition caused by unequal pressures on the several blades made by the two streams of water flowing into the pusher propeller and set about by the propeller shaft as it slices through the water in advance of the propeller. It would reduce the torque. It would reduce the difference between the pitch of the down going and the pitch of the up coming propeller blade; in fact it would reverse this action, thus reducing the effort of the boat to turn away from the direction of rotation of the propeller. A boat with a tractor propeller will run a straight course of its own accord. The tractor propeller will jump out of the water—so will one under the stern, and so the score is even here. Another thing, as the bottom raises to its planing angle the motor takes a more nearly level position, and consequently its functioning will approach more nearly the ideal conditions found on the testing stand, something also worth having.

In a further effort to reduce windage to a minimum I should arrange the cockpit to seat two in tandem, after the ways of air craft. Then the other cockpit to furnish accommodation for four all told, as required by the rules governing the racing of boats of this character, would be forward and covered with a flush hinged hatch. Cleats would be below decks with lead-in holes for lines wherever needed.

The construction would be after the usual practice with double planking with muslin between on the bottom, topsides and deck: there would not be a projecting moulding on the boat and not a thing in the air but the heads of the helmsman and mechanician.

## A New Old Combine

(Continued from page 38)

Albany Boats, and will handle their entire distribution. While they will always be ready to furnish boats of all descriptions, built to the customer's specifications, they intend to devote their principal efforts toward seven standardized designs of runabouts and cruisers which have been arranged with a view to furnishing the most satisfactory and well arranged boats that can be supplied of the various sizes.

The company is also acting as sole distributor of the well known W-S-M Engines, as well as the Lycoming Engines,—eight, six and four cylinder models.

These engines are sturdy and powerful, and built in the following sizes. The eight cylinder has a bore and stroke of 3¼ by 4½ inches, develops 56 h.p. at 1750 revolutions, and weighs 790 pounds. The six is 3¼ by 4½ inches, develops 45 h.p. at the same speed, and weighs 690 pounds. The four cylinder is a little bit larger, being 4 by 5 inches, developing 38 h.p. at 1500 revolutions. Its weight is 570 pounds.

## Cannonball, a Hydroplane

(Continued from page 78)

inches long and not over ¼ inch in thickness; the leg must not be over ¾ inches thick at the hub and ⅞ inches near the base. If it is 3 inches wide at top and 2½ inches at the bottom it will carry any propeller one is likely to use. The strut hub should be 6 inches from the fore side of the propeller hub, thus bringing the center of the blades 12 inches abaft station S.

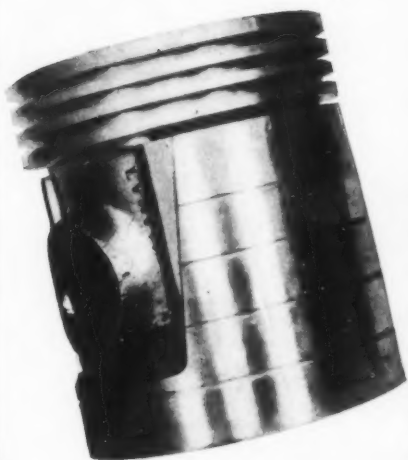
If the drawings are followed carefully and the weights are kept as shown I feel that Cannonball will prove to be a very fast and able kind of hydroplane.

As a service to readers who might want larger copies of the drawings for Cannonball to a scale of 1 inch to the foot, arrangements have been made to supply blue prints at moderate cost. Write to the editor of MoToR BOATING, 119 West 40th Street, New York, N. Y., for particulars of cost, and how to secure prints.

PURDY  
BUILT.

BISCAYNE BABIES

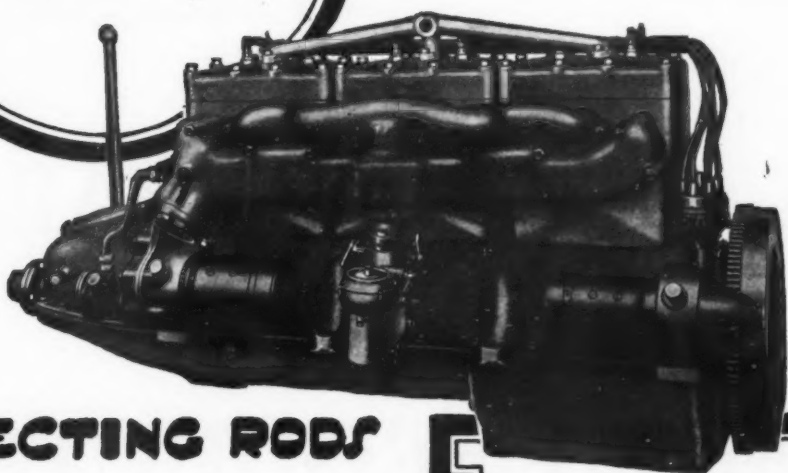
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# LYNITE PISTONS

LIGHT WEIGHT of Lynite pistons reduces vibration and increases speed.

HIGH HEAT CONDUCTIVITY decreases carbon deposits and pre-ignition.



## CONNECTING RODS

HIGH TENSILE STRENGTH ALUMINUM ALLOY makes possible a connecting rod approximately 40% of the weight of a steel rod.

LIGHT WEIGHT means low reciprocating weight, increasing the speed, power and smoothness, and lowering the bearing pressures, giving longer bearing life.

HIGH HEAT CONDUCTIVITY means that the heat is rapidly carried away from the bearing, giving longer bearing life.



ALUMINUM COMPANY OF AMERICA  
Pittsburgh, Pa.



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**ALL  
THE BISCAYNE BABIES  
DRESSED  
IN  
SMITH PRODUCTS**

*Their Bottoms Coated with*  
**SMITH'S FRICTIONLESS RACING BOTTOM**  
*(Copper Bronze Finish)*

*Their Top, Sides and Deck with*  
**Smith's Canoe Enamels**

*Finished with*  
**The Cup Defender Varnish**  
**AQUATITE**

**EDWARD SMITH & CO.**  
Long Island City, N. Y.

**PURDY  
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**BISCAYNE BABIES**

**SCRIPPS  
POWERED**

## Biscayne Babies are HYDE Equipped



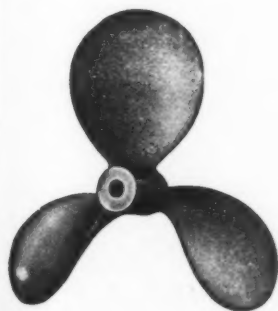
*Something different in boat racing, the Biscayne Baby Race at Miami Beach, Florida. All the boats are one design, 18 feet in length and of equal weight. All of the boats were built by the Purdy Boat Company. Each has a Hyde Wheel.*

**T**HE Biscayne Baby race might be really called the first motor boat race where superior seamanship was the winning factor. Each boat entered was identical in design, equipment and weight. The drivers, famous automobile racers, weighed in before the start, sand ballast was used to make the weight carried in each craft uniform.

Every part of the construction and equipment of the Biscayne Babies was carefully selected by the builder and represents the best in their respective classes. In nearly every important power boat race of the past the winning craft was Hyde equipped; so it was only natural then that Hyde Propellers were selected as standard equipment for the Biscayne Babies. Hyde wheels have always proved winners where speed, efficiency and reliability are desirable.

The combination of Hyde design, materials, balance and finish means higher propeller efficiency and maximum miles per hour whether your boat is designed for fast or slow work.

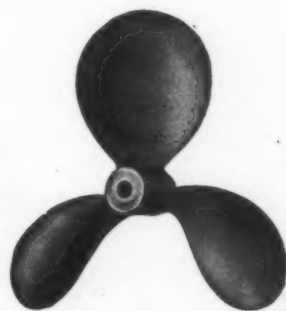
*Write today for booklet "Propeller Efficiency,"  
it tells an interesting and instructive story*



**Hyde Windlass Company**

**Bath**

**Maine, U. S. A.**



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BUILT**

**BISCAYNE BABIES**

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POWERED**

The AUTOPULSE is a magnetic fuel unit which draws the gasoline from the supply line and delivers it to the carburetor by the pumping action of a brass bellows, which is expanded by electro magnet, energized from the battery. Output of the pump is controlled by the carburetor float valve. The rated capacity of the unit is eight gallons per hour, but has a maximum capacity of twelve gallons per hour.



"LADY HELEN," winner of the Junior Gold Cup held in the Detroit River, September, 1924, was equipped with an AUTOPULSE — she was powered with a SCRIPPS F-6 engine.

## Autopulse

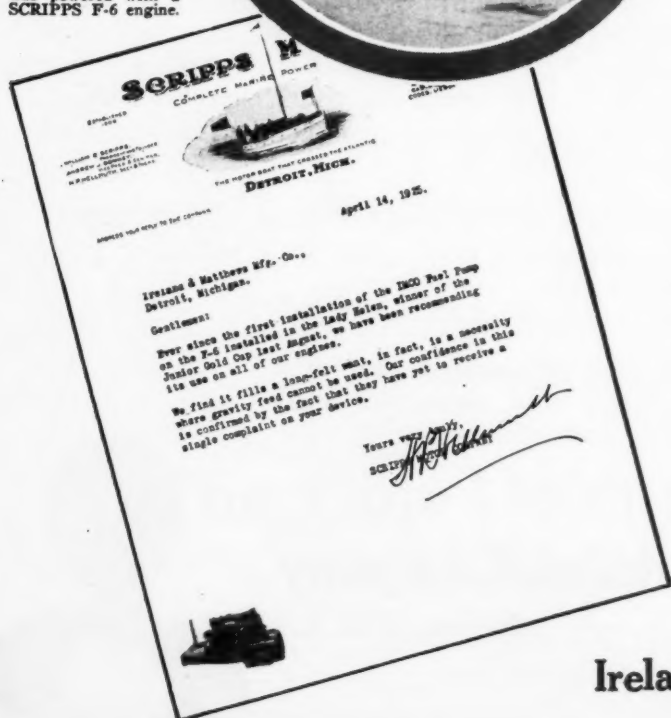
is a more desirable, more reliable, more positive and safer system of supplying fuel to the carburetor. It keeps the fuel in carburetor at uniform level while motor is running, regardless of speed. Autopulse is the outstanding achievement of the age for promoting marine engine efficiency.

When you use the Autopulse you can install the fuel tanks anywhere you wish in the boat, either above or below the carburetor level and any distance away. Autopulse performs the same service as a vacuum tank or pressure feed fuel system, but the difference is that it always works perfectly and without attention.

Autopulse is used and recommended by such prominent marine engine manufacturers as Scripps, Kermath, Stearns, etc., and by such high-grade boat builders as Belle Isle Hacker, Chris. Smith, Red Bank and many others.

WRITE FOR COMPLETE INFORMATION—THERE IS SOME VALUABLE TERRITORY STILL OPEN.

**Ireland & Matthews Mfg. Co.**  
1500 Beard Ave., Detroit, Mich.






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SCRIPPS  
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**L**AMINATED SHIMS are used on Scripps Marine engines including the famous F-6—powerplant of the Biscayne Babies.

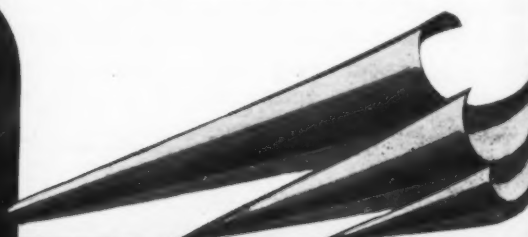
Laminated Shims save from one to four hours on every adjustment job and a lot of extra dollars.

Just PEEL 'em with a pocket knife—that's why Scripps uses 'em.

Quick! Easy as peelin' strips of paper from a pad. Shims for every marine engine. All sizes and types carried in stock by dealers. Get yours today and wear a Laminated smile.

LAMINATED SHIM CO.  
Incorporated

229 14th Street, Long Island City, N. Y.  
ST LOUIS: MAZURA MFG. CO.



LAMINUM

**PURDY  
BUILT**

**BISCAYNE BABIES**

**SCRIPPS  
POWERED**



**SKF** is linked with a world-wide reputation for delivering satisfactory service, and to an investment too large to be jeopardized by non-performance of anything with which it is connected.

Therefore **SKF** provides a supervision of factories throughout the world and an international organization for scientific research in engineering, manufacturing and merchandising to assure to the user a full measure of performance in products endorsed with the mark **SKF**.



## At the Miami Beach Races **SKF** Wins on Performance Well Done

**T**HROUGH clouds of whirling spray over a 12-mile course, right to the finish line, the eleven Purdy boats, powered with Scripps engines and driven by famous automobile racing drivers, made a remarkable showing in the Biscayne Baby Class at the Miami Beach Regatta.

**SKF** marked Ball Bearings in the tail-

shaft and thrust of each of the eleven six cylinder, 100 H. P. Scripps motors came through with flying colors. At a maximum speed of 40 miles per hour the power plants gave perfect performance. Because of their stamina, endurance and reliability, "in every land beneath the sun Hess-Bright and Skayef Ball Bearings on worth have won."

**SKF INDUSTRIES, INCORPORATED**

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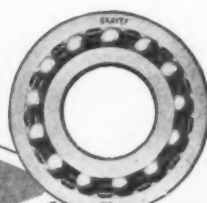
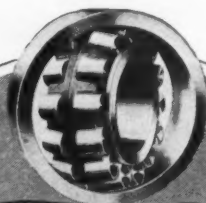
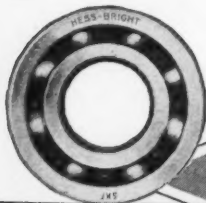
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NEW YORK CITY

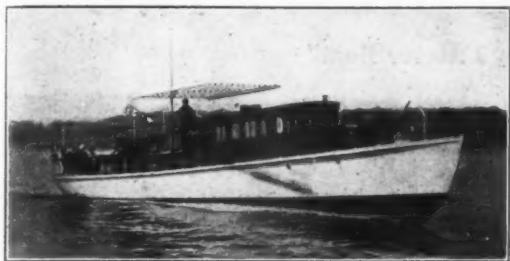
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PHILADELPHIA  
SAN FRANCISCO

1405

"More than 100 factory offices throughout the world"



# BALL AND ROLLER BEARINGS



### FOR SALE

#### The Seagoing Cruiser "CLOVER"

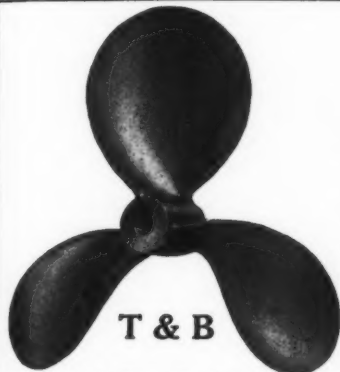
Ready for Immediate Delivery

Length . . . . . 80' 6"  
Beam . . . . . 10' 6"  
Draft . . . . . 3' 6"

Two double staterooms, two toilets, deck saloon. Galley, pantry, crew's quarters and storeroom. Double planked hull. Mahogany joinerwork. Bronze fittings. 200 H.P. speedway motor. Speed 20 miles per hour. Will demonstrate to authentic buyers. For further particulars and price write:

**PURDY BOAT COMPANY**

Trenton, Michigan  
Designers and Builders



Peterborough Canoe Co., Ltd., Peterborough, Ont., Canada

### SATISFACTION GUARANTEED

**B**Ryant & BERRY Propellers are built in two types, T & B and B & B. In both wheels, unexcelled quality and workmanship are guaranteed.

If at all in doubt as to the type and size of propeller best adapted to your boat—let us have its specifications—we promise you that you will be satisfied with the wheel that we recommend.

Our stock is complete—we can give you immediate delivery.

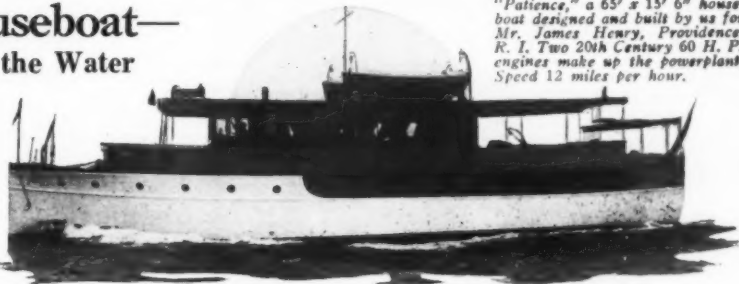
**Bryant & Berry Propeller Co.**  
1202 Lillibridge St., Detroit, Mich.



New York Agents  
**E. J. WILLIS & CO.**  
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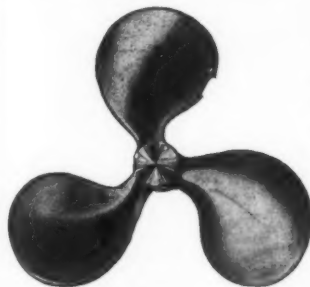
**T**HE houseboat is ideal for cruising in northern and southern waters. The New York Yacht, Launch & Engine Craft represents the very latest in design, serviceability and comfort. Designing and building is done entirely in our yards. Our prices cannot be equalled when construction and finish are considered.



"Patience," a 65' x 15' 6" houseboat designed and built by us for Mr. James Henry, Providence, R. I. Two 20th Century 60 H. P. engines make up the powerplant. Speed 12 miles per hour.

Further information upon request

**NEW YORK YACHT, LAUNCH & ENGINE COMPANY**  
MORRIS HEIGHTS NEW YORK CITY



## HARTHAN

TRUE SCREW

## PROPELLERS

For 21 Years Have Been Efficient, Dependable, Durable

Our Service Department will be glad to help you with any or all of your propeller problems. Use the coupon.

**McFARLAND FOUNDRY & MACHINE CO.**  
TRENTON, N. J.

Water line length.....  
Beam.....  
Construction (light, heavy, medium).....  
Make of engine.....  
H.P. .... R.P.M. ....  
Present speed.....  
Present wheel.....  
Present R.P.M. ....  
Name .....  
Address .....  
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AGENTS: BOSTON—Toppan Boat & Engine Co., 125 Riverside Ave., Medford, Mass. NEW YORK—Bowler Holmes & Hecker Co., 259 Greenwich St. PHILADELPHIA—Marine Equipment & Supply Co., 116 Walnut St. NEW ORLEANS—Eclipse Engineering Co., 333 Chartres St. WILMINGTON, Cal.—Wilmington Boat Works. SEATTLE, Wash.—Chandler Hudson Co. Motor Boat Garage Co., 36 Linden Ave., Winnipeg, Manitoba.

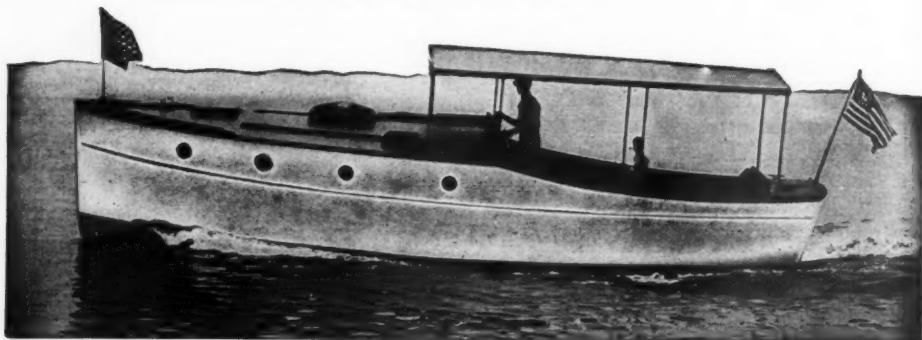


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The First "Everybody's Motor Boat"

Raised Deck  
Cruiser Com-  
plete, Ready  
for Cruise —

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Delivery from  
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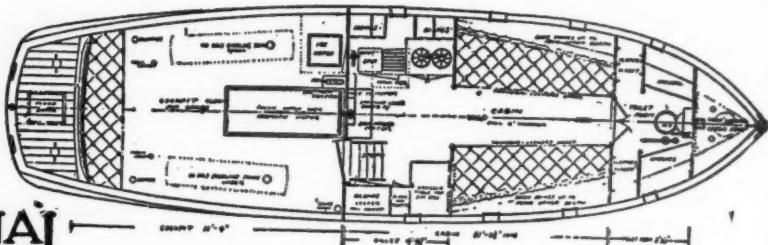


### PRICES

**\$3950** with Kermath 20 H.P. En-  
gine, speed 10 miles per hour.

**\$4350** with Kermath 35-50 H.P. En-  
gine, speed 12 miles per hour.

*The Best Boat Value—  
By a Very Wide Margin*



Arrangement Plan

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SHIPBUILDING AND MARINE ENGINEERING  
CORPORATION  
NYACK, NEW YORK, U.S.A.



**Y**OU like boating for the fun and pleasure that it gives. We all like to monkey around boats—keep them trim and neat. But man alive how you can work, work and work putting a boat in shape and never finish. That's why you should always use the highest grade materials—they last longer and cut down the work. For instance, Kuhls' Elastic Seam Composition is unexcelled for filling seams. One filling will last nearly twelve years, retaining its adhesiveness and original elastic qualities.

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**DOMAN  
"BULLDOG"**

Extended  
base and  
Reverse  
Gear

**4-5 H.P.  
Four Cycle,  
Bore 3 3/4"  
Stroke 4 1/2"**

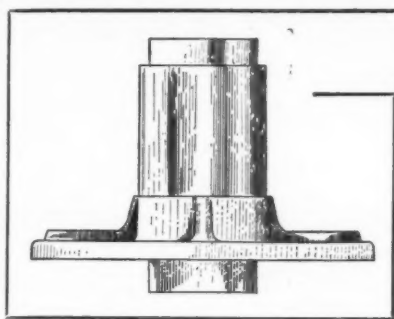


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**S**MALL boat owners choose the Doman Bulldog as the most serviceable 5 H.P. four cycle engine suitable for their requirements. And why? One reason is the 35 years experience in marine engine building and designing that is back of it. Other reasons are its durable construction and advanced design embodying overhead valves, removable cylinder head, one piece drop forged cam shaft hardened and ground, cut semi-steel gears, and ball thrust bearings. Bearings are bronzed backed, die cast, removable and interchangeable.

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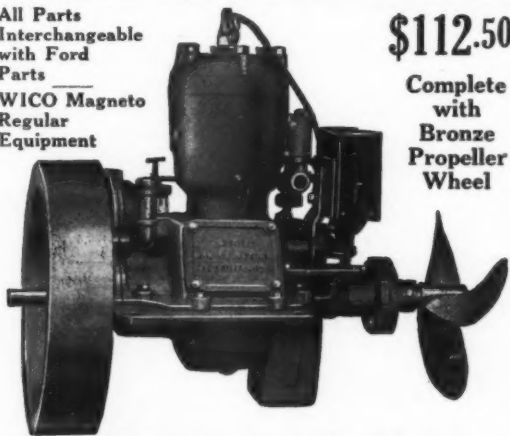
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*The World's  
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All Parts  
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**\$112.50**

Complete  
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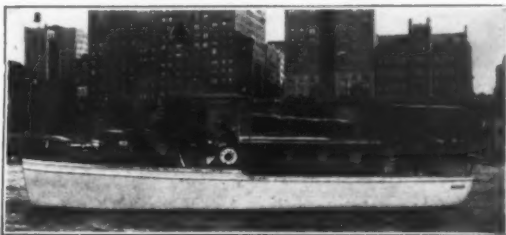
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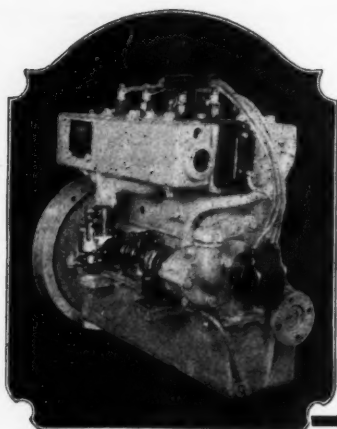
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### INTERNATIONAL MARINE MOTORS

**"Never touched it All Season"**

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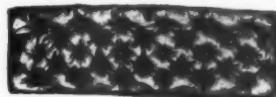
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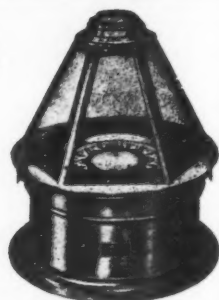
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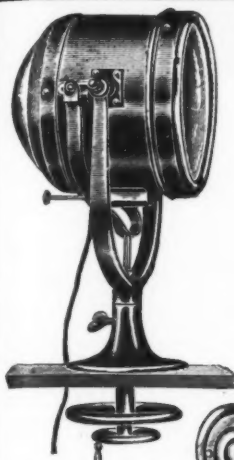
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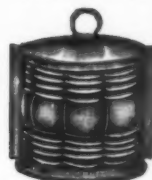
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### Marine Paints & Varnishes

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4 cylinder  
4 cycle  
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5 H.P.  
4 Cycle  
\$110

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See other Niagara Motor announcements on pages 72-150 of this issue.

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*"Boats that will last"*

## Outboard Motor Boats

Combining several important and essential features for use with outboard motors—

**Safety**—Broad on the water to give buoyancy, especially at the stern to provide for the weight of the motor. Also higher sides than in row boats to give safety in rough water and to carry heavier loads.

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**Lightness**—Child can handle craft when motor is out. Boat is heavy only where heaviness helps.



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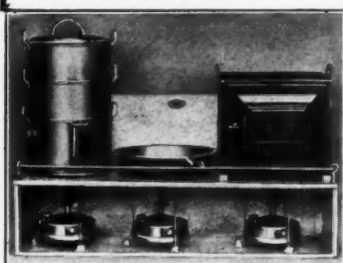
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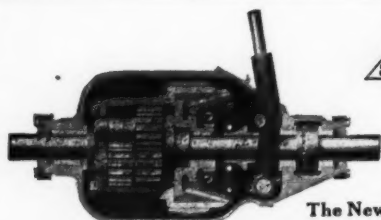


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Your Boat should have one. Made in 6, 12, 18, 24, 32, 110, 220, or 250 volts.

Operates either A. C. or D. C. Copper, Brass, or Nickel on Copper or Brass Finish. Price, only \$40.00. Send coupon today. Be sure to give voltage desired.

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Send Type "A" FEDERAL SIREN, \$40.00 complete, for ... volts, and if not pleased I will return it prepaid for credit.

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# MATHIS YACHT BUILDING CO.

## 85 ft. of Houseboat Perfection

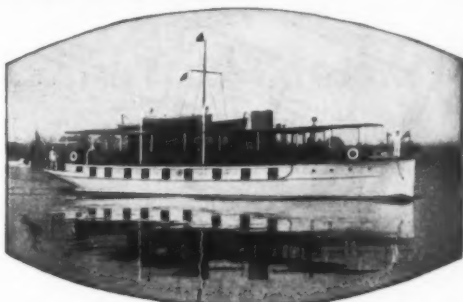
At right, "SEQUOIA,"

for Mr. Richard M. Cadwallader, Jr.  
Philadelphia.

Below, "ZENITHIA,"

for Mr. A. J. Fay, Lowell, Mass.

Both 85 ft. long; both with 17-ft. 6-inch beam; both with 3-ft. 9-inch draft. And both with the newly-perfected yacht-type stern which has established so exceptional a showing as to speed and seaworthiness since its introduction by us.



Wherever these newly-launched houseboats go, they are the center of interest for their ability to go anywhere, combined with the utmost in comfort and economy of operation.

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Specialists**

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Specialists in Houseboats and Cruisers  
from 40 to 120 feet

Cooper's Point

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For Fishing Boats.  
Work Boats, Trollers.  
Up to 8 H.P.

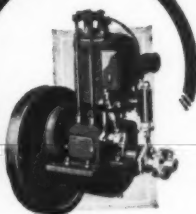
**\$99 up**

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Get your Gray motor early so you can enjoy a full season of thrilling pleasure. When you buy a Gray you get the benefit of thirty years' marine engine building; known and used all over the world. This year they are better than ever; smoother running, easier starting, no back firing, longer lasting and cost less to operate than others.

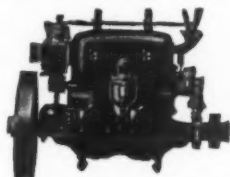
Gray Model U, 6-8 H.P. Over 13,000 Model U Grays are in service today. As simple and trouble-proof as the best engineering practice makes possible. Only three moving parts—piston, connecting rod and crank-shaft. You could not get a better engine of its size at treble the price.

You  
Cannot  
Equal These  
Values



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New this year, the greatest one cyl. four cycle engine ever produced, an unequalled success. We could market this engine at a much higher figure and make big profits—but that is not the Gray policy. We want to give the world the greatest treat in engine value and the greatest power for fuel consumed of any engine in its class. Oversize construction thruout. Schebler carburetor with hot air connection to exhaust. Bosch magneto extra, water pump is very large and keeps engine cool when trolling as low as 125 R.P.M.



Model U, 6-8 H.P.  
2 cycle, 2 cylinder

Quick Delivery Guaranteed

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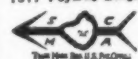
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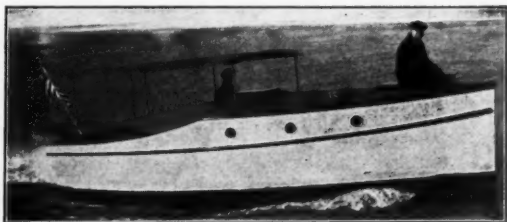


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The Beaver 4-cylinder 43/4x6 engine is an out-and-out Marine Engine. It is seaworthy. It is compactly designed and built and is ideally adaptable to 35-foot cruisers. Besides, it will perform dependably in work boats.

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A 23-Foot Cruiser, Completely  
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The new "Richardson" 23-foot cabin cruiser is an attractive, substantial and comfortable boat—constructed of first quality material and by skilled boat builders.

Eight-foot beam—head room five feet—Gray model "ZB" marine motor. Speed nine miles per hour.

Write for descriptive catalog.

We are also builders of any type of craft up to seventy-five foot types.

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QUALITY BOATS

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Builders of

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All of our work is built under the personal supervision of John L. Hacker, N. A. Strictly high-class, with speed and performance positively guaranteed.

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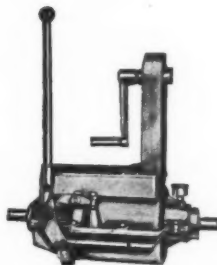
We can meet any reasonable requirement in Racing, Pleasure, or Commuting craft. Prints and estimates will be cheerfully furnished without obligation.

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We make a special gear for 100 H.P. Hall Scott and similar high speed motors. We also make a special gear for International and Roberts Marine Motors.

We design and build special gears for manufacturers.

## *Used on All Types of Marine and Converted Motors*

That's one of the big advantages of the SYRACUSE Reverse Gear. It is adapted for installation in any type and size of marine and converted motors—including converted airplane motors. You can install it yourself, if necessary. The SYRACUSE is one of the easiest clutches to install.

The SYRACUSE Reverse Gear is smooth running, powerful and compact. It is enclosed in oil tight case with rear starter integral, ball thrust control, lever and starting crank.

**Ask your boat builder or marine accessory dealer  
for the SYRACUSE Reverse Gear, or send direct.**

**SYRACUSE GEAR COMPANY, Inc.**  
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This reliable Barometer enables you to predict accurately any change in weather 8 to 24 hours in advance. Scientifically constructed, attractive in appearance. Finished in Mahogany, Oak or Flemish; enamel dial, heavy bevel glass front. Size 5½ inches.

### An Ideal Gift

Makes a highly prized and lasting gift. Educational, useful and interesting. Indispensable to yachtsmen and motorists. Should be in every home. Fully guaranteed; postpaid to any address on receipt of

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**12 FT. BOAT WITH POWERFUL**  
**3 H. P. ELTO \$199**  
 14 Ft. with ELTO \$209

We have fifty Toppan Sea Skiffs with reinforced sterns, similar in design to the famous Toppan Outboard Motor Boats. For thirty days only or until lot is sold we offer these boats with the ELTO at above prices F. O. B. Factories. Your chance to get a Toppan boat at half the price of the regular 15 ft. Outboard Motor Boat.

Toppan Boat & Engine Co., Medford, Mass.

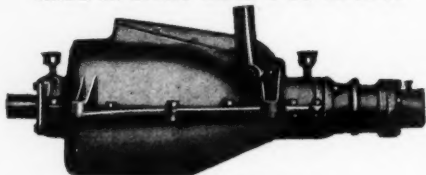
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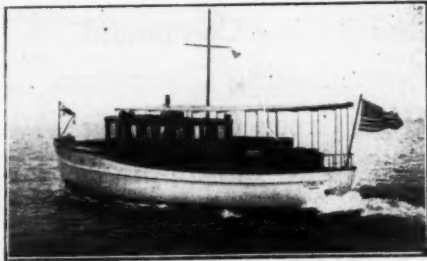


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Power  
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Standard-  
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48, and 66  
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**MUNROE DESIGNS** INSURE PERFECT SATIS-  
FACTION AND ECONOMY

**GORDON MUNROE, N. A.**

86 GRAMPIAN WAY, BOSTON 25, MASS.

## Biscayne Baby Class Still Attracts

(Continued from page 33)

position, which he held for the entire distance. Ray Harroun in Fulford was seventh at the end of the first lap and stayed in seventh position to the finish. Closely astern of Harroun, followed Louis Chevrolet in his Hialeah, and astern of him was Phil Shafer, both of which were accorded points for finishing.

Eight boats started the fifth heat, led again by Tommy Milton. In this heat Milton was careful to pass all turning buoys on their proper side and led from start to finish, gaining all the time over the second boat and finishing 25 seconds ahead of Peter DePalo, who was in second position. Ira Vail finished third, Ray Harroun fourth, Louis Chevrolet fifth, L. L. Corum sixth.

The winner of the six heats was determined by the American Power Boat Association racing rules for scoring in each heat race. When the various points won by the boats in each of the heats were added up, it was found that Louis Chevrolet was the winner, having gained 1,654 points, Tommy Milton was second with 1,472, Wade Morton third with 1,441, Peter DePalo was fourth, Jerry Wonderlich fifth, Ira Vail sixth, L. L. Corum seventh, Harry Hartz eighth, Phil Shafer ninth, Wm. Knipper tenth and Ray Harroun eleventh.

The prize money was awarded in order of the points won, together with an additional \$250 to the winner of each heat and \$150 to the boat which came in second in each heat. Wade Morton was the winner of two of the heats, Jerry Wonderlich took one, as did Louis Chevrolet, Tommy Milton and Peter DePalo. Wm. Knipper took one second, as did Tommy Milton, Phil Shafer, Ira Vail, Peter DePalo and Harry Hartz.

From the above it will be seen that no boat had an advantage at any time. The race was a test of seamanship from the start to the finish. At all times, the drivers of the boats handled their craft perfectly and at no time was there any unsportsmanlike driving apparent. The drivers accepted the rulings of the judges and committee without protest and all appeared well satisfied with their place in the race.

In the Fisher-Allison race, three boats participated. Baby Gar IV entered and was driven by Commodore Gar Wood; Baby Gar V, entered by Gar Wood, Jr., was driven by Phil Wood, and Adieu IV entered and was driven by Webb Jay. Baby Gar IV took the race, which consisted of three fifty-mile heats, winning all three heats without difficulty. Adieu IV took the lead in the first heat and held it for seventeen laps of 2½ miles each, when a clogged fuel line forced her out of the running. In the second heat, Adieu IV also had mechanical trouble and withdrew from the race again in the seventeenth lap. Adieu IV failed to start in the third heat, the whole fifty miles being covered by Baby Gar IV and Baby Gar V running side by side.

The winner of the Fisher-Allison race gives Gar Wood a second leg on this valuable trophy. Webb Jay also has two winnings to his credit. It will only be necessary for one of these owners to win one more race to make the cup become his permanent property.

The race for the Dodge Memorial Trophy brought out four starters as follows:

Miss Syndicate, a new boat, designed by Crouch and built by the Horace E Dodge Boat Works, of Detroit, and entered by the Dodge Bros. Dealers' Association.

Baby Gar IV, which also competed in the Fisher-Allison race, but for the Dodge Race was powered with a 1,350-cubic-inch Liberty Motor instead of the 1,060-cubic-inch motor with which she was powered for the Fisher-Allison contest.

Entered also in the Dodge Race was Baby Gar V, which also raced in the Fisher-Allison Class, and Curtiss Wilgold II, a new boat, entered and driven by R. V. Williams of Buffalo.

The competition in the Dodge race was the keenest of any. Reg Williams, driving his first motorboat race, forced Gar Wood in his Baby Gar V over every inch of the way. No better driving or example of sportsmanship has ever been seen in any race meet than that displayed by Mr. Williams in all of the five heats for the Dodge Trophy. Curtiss Wilgold II is only a 25-footer, powered with a 625-cubic-inch Gold Cup Curtiss engine, and only being about one-half the size and power of the other boats, yet the outcome was in doubt every moment from start to finish. At times, Mr. Williams was forced to stay between the two Wood boats and take their wash and spray for miles at a time. However, being so small in size, the Curtiss Wilgold lacked the necessary punch to get through the wake and waves of the two Wood boats, and was, therefore, forced to take second place. However, in the second heat, by skillful driving, Wilgold II passed the boats at a turn and took the lead and could not be overtaken by the Baby Gar V and

(Continued on page 100)





"Nirvana"—New steel house-boat owned by Rodman Wanamaker on which A. M. F. pumps are operating successfully. 115 ft. long, 22 ft. wide with 3 ft. draft. Designed and built by Geo. Lawley & Son Corp.

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"Watch-dogs of the Deep"

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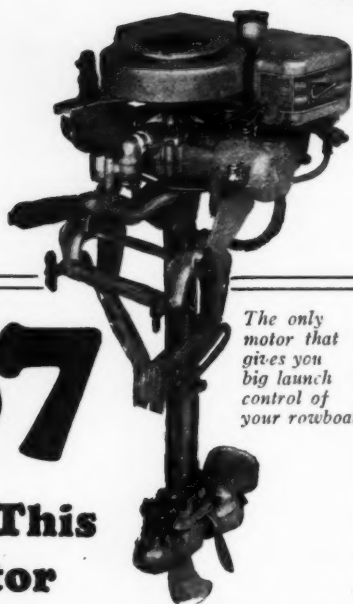
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Gasoline Driven

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## "STANDARD"

The QUALITY pumps



# \$37

The only motor that gives you big launch control of your rowboat

## Put This Motor On Your Boat

That's all you need for a summer full of boating pleasures. Just \$37.00. Then no more rowing, no blistered hands, no more aching muscles. Our

### "Pay as You Play" Plan

makes it easy to take care of balance. Any Caille dealer will be glad to explain the plan fully. Or write direct. Learn how easily you can get a



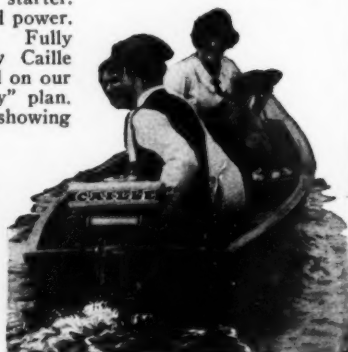
Famous the world over. Speed changes made mechanically and positively by raising or lowering steering handle in ratchet. Provides high speed forward, trolling speed, fast reverse, slow reverse and neutral. When set at neutral, motor runs while boat stands still.

### Other Features

Twin cylinders—no vibration. Light weight. Zenith carburetor. Eisemann magneto. Motor tilts over obstructions. Rope starter. Lots of speed and power. Beautiful finish. Fully guaranteed. Any Caille motor can be had on our "Pay-As-You-Play" plan. Send for catalog showing complete line.

**The Caille Perfection Motor Co.**

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DETROIT  
MICH.



## Biscayne Baby Class Still Attracts

(Continued from page 98)

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On the Race Committee, serving with Carl G. Fisher, was W. D. Edenburn, Detroit; Ned Purdy, of Trenton, and the Editor of MoTOR BOATING.

Much of the success of the whole race can be credited to Commodore C. W. Kotcher, of Detroit. Commodore Kotcher, besides being Chairman of the Prize and Chance Race Committees, worked incessantly to complete all the Regatta details and was largely responsible for the large entry list in the Chance Race. Commodore Kotcher was responsible for the large number of prizes, which were given by the Miami and Miami Beach merchants and enthusiasts for the Regatta. Commodore Kotcher has been on the Miami Race Committee for the last ten years.

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The scoring and timing was handled by officials of the American Power Boat Association, including Ira Hand, Arthur J. Utz, W. H. Young, Wm. Irwin, H. E. Raymond and James Scripps. A list of the principal prizes is as follows:

#### CHANCE RACE

- First Prize—Star Island, 8-piece water set.
- Second Prize—Tatum Bros., silver flower vase.
- Third Prize—Sutton & Gibson, silver fruit dish.
- Fourth Prize—E. B. Douglas Co., floor lamp.
- Fifth Prize—Burdine & Quarterman, Pyrene fire extinguisher.
- Sixth Prize—Miami Grocery Co., box of fancy canned fruits.

#### RACE FOR DODGE PERPETUAL TROPHY

- First Prize—Commodore H. E. Dodge Perpetual Trophy and Championship Flag.

- Second Prize—Pancoast Hotel, silver center piece.

#### BISCAYNE BABY RACE—DRIVERS' PRIZES

- First Prize—Miami Beach First National Bank, 5-piece tea set.

- Second Prize—Fleetwood Hotel, silver loving cup.
- Third Prize—Foster & Reynolds, Icy Hot carafe set.
- Fourth Prize—Railey-Milan Hardware Co., Alladin jar.
- Fifth Prize—Red Cross Pharmacy, mahogany desk clock.
- Sixth Prize—Jules Haberdashery, pair of sport pants.

#### EXPRESS CRUISER RACE

- First Prize—Nautilus Hotel, silver cup.
- Second Prize—Venetian Islands.

#### FREE-FOR-ALL RACE

- First Prize—Flamingo Hotel, silver cup.
- Second Prize—Col. E. H. R. Green, silver fruit basket.
- Third Prize—Sewell Bros., golf bag and clubs.

#### BISCAYNE BABY—OWNERS' RACE

- First Prize—Commodore Wm. E. Scripps Trophy.
- Second Prize—Miami Beach Chamber of Commerce, clock.
- Third Prize—Burdine's Sons, Stanley thermostat.

#### AQUAPLANE

- First Prize—Carl G. Fisher Trophy.
  - Second Prize—Commodore A. J. McLeod, silver loving cup.
- SPECIAL PRIZE FOR FASTEST HEAT IN ANY RACE**  
Miami Shores, silver service set.

# Eisemann Flywheel Magneto

## *Adopted by Caille*



THE new Caille 5 Speed Twin Motor reflects a notable improvement in the design of outboard motors. A number of advanced features are incorporated. It is a quality product throughout.

To make the new Twin Motor a model of perfection in every detail, Caille turned to the leading American manufacturer of high quality magnetos for an ignition unit superior to the systems commonly used on outboard motors. The new Eisemann flywheel magneto conforms to the high standards of excellence demanded by Caille. Easier starting and greater reliability have been attained.

Buyers of the new Caille Twin Motor are assured of prompt and efficient magneto service. Official Eisemann Service Stations are to be found in all of the principal cities throughout the country.

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# EISEMANN

## ELECTRICAL EQUIPMENT



## Biscayne Baby Class Still Attracts

(Continued from page 98)

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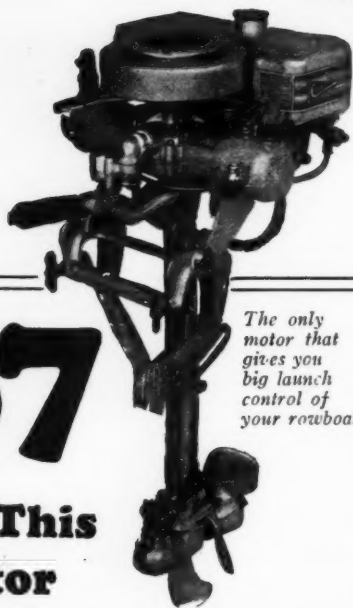
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- SPECIAL PRIZE FOR FASTEST HEAT IN ANY RACE  
Miami Shores, silver service set.



# \$37

## Put This Motor On Your Boat

The only motor that gives you big launch control of your rowboat

That's all you need for a summer full of boating pleasures. Just \$37.00. Then no more rowing, no blistered hands, no more aching muscles. Our

### "Pay as You Play" Plan

makes it easy to take care of balance. Any Caille dealer will be glad to explain the plan fully. Or write direct. Learn how easily you can get a



Famous the world over. Speed changes made mechanically and positively by raising or lowering steering handle in ratchet. Provides high speed forward, trolling speed, fast reverse, slow reverse and neutral. When set at neutral, motor runs while boat stands still.

### Other Features

Twin cylinders—no vibration. Light weight. Zenith carburetor. Eisemann magneto. Motor tilts over obstructions. Rope starter. Lots of speed and power. Beautiful finish. Fully guaranteed. Any Caille motor can be had on our "Pay-As-You-Play" plan. Send for catalog showing complete line.

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# Eisemann Flywheel Magneto

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# EISEMANN

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# Whoever Judged Size, Weight

**T**HERE is nothing unusual, admirable or remarkable about the brute strength of a big heavy marine motor. It *should* give power at the price—if the owner is willing to stand the clumsiness, complexity of parts and running expense.

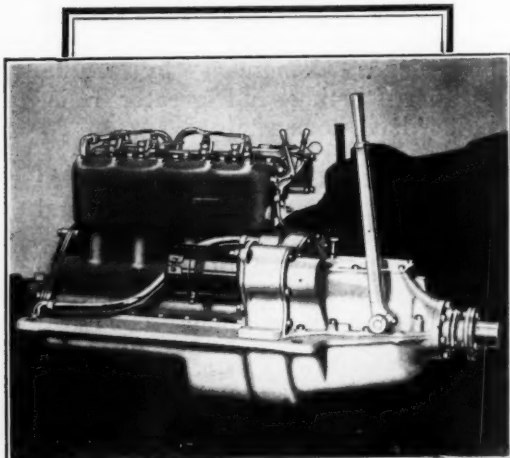
This thing boatmen call performance, power and dependability doesn't come in packages of pounds, inches, parts and price. Given the accumulated experience of yesterday and the modern manufacturing methods of today, some one maker is bound to rise above the crowd with a product stripped of non-essentials—unencumbered with the mistakes of other engines of the past—free from bulky size.

This Gray Model "Z" was built with no other engine in mind—it followed no precedent. This company walked off the beaten path of "other days and ways" and built an engine that gives results without depending on size, weight and price.

Every essential detail; every tough, powerful unit is concentrated to make a compact engine—that's the reason for its smaller size.

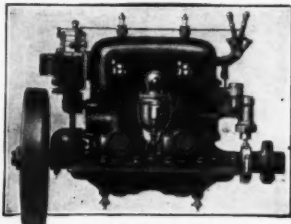
Nothing is there that shouldn't be, and everything is there that should—that's the reason for its lighter weight.

## The Gray Model "Z" Motor



### SPECIFICATIONS

Length 38 $\frac{1}{4}$  overall, 66% of entire surface is salt water resisting aluminum—iron base optional. Greatest depth, below base 6", height 14 $\frac{1}{2}$ ", 380 pounds complete. For boats up to 30 feet.

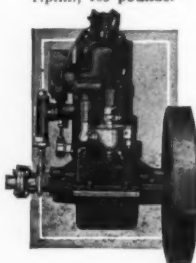


### 2-Cycle, 6-8 H. P.

Model "U"—popular since 1912. Redesigned for higher power, and smoothest running. For 14-18 footers, speeds up to 15 miles.

### Model "O"

Runs on Kerosene  
Model "O" — 4-5  
H.P. valve-in-  
head 4-cycle.  
Magneto equipped.  
3 $\frac{3}{4}$ " x 4 $\frac{1}{4}$ ", 1000  
r.p.m., 165 pounds.



## DELIVERIES

Because of our manufacturing methods and a supply of engines kept ready for immediate shipment, orders for early spring motors can be quickly filled in all parts of the country.

### Write for These Gray Catalogues

MODEL "Z," 14-22 H.P. - - - - \$295.00 to \$466.00  
MODEL "VE," 35-40 H.P. heavy duty - - - - \$600.00

**GRAY MARINE**  
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# Gray

# An Engine by and Price?

The huge demand has increased production to the point where these engines are built on a "manufacturing line"—that's the reason for the lower price.

Consequently, the Gray Model "Z" has become famous with boatbuilders and boat-owners as the

## SHORTEST LIGHTEST CLEANEST and LOWEST PRICED

high grade marine motor in its power class equipped with electric starter and generator.

The result is a motor that is completely equipped ready to run without the necessity of essential extras—a motor whose great feature lies in its extreme simplicity and a motor that is economical to buy and economical to keep going. All with the speed, power and dependability of performance that has been characteristic of all models and motors built by the Gray Marine Motor Company.

### Territories Open To Dealers

Excellent territories are open to dealers on the Gray Model "Z"—the same engine that was picked to power Elco's new craft. Every engine delivered in perfect running condition. Write us for complete information.

MODEL "O," 4-cycle, 5 H.P. - - - - \$99.00 to \$135.00

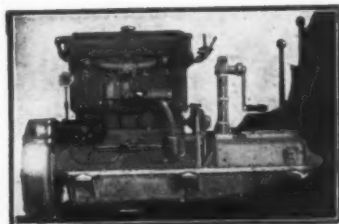
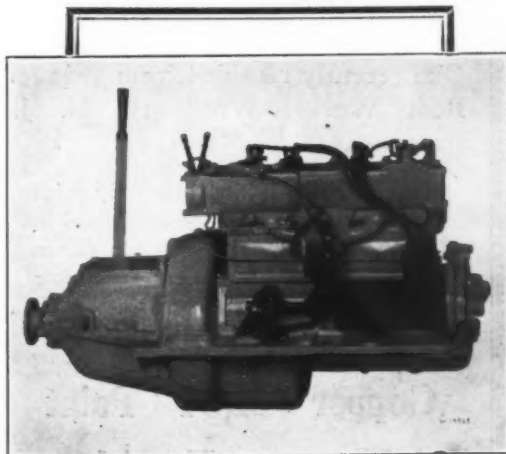
MODEL "V," 25-35 H.P. - - - - \$460.00 to \$720.00

MODEL "U," double cylinder, 2-cycle, 6-8 H.P.

**MOTOR COMPANY**  
East at Canton, Detroit, Mich.

# Motors

Model "Z" Generator Side



Model "V"—25-35 H. P.

Bore  $3\frac{1}{4}$ ", stroke 5", weight 550 pounds, pressure lubricated, for boats up to 40 feet. Used by the United States Government. Write for new catalog just off the press.



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quality and durability*

*Dealers located in every port*

Letters testifying as to the merits of our products reach us every day. One recently received from Royster Boat Works, Woodbury, N. J., states—

"Your Marine White is the only paint we have ever used that dried hard in ten hours and did not get a cream color. It can't be beat and from now on it will be Woolsey's Paint on all our boats."

**Copper "BEST" Paint**

**Tungspar Varnish**

(Will not turn White)

**Copper Oleate Fish Net  
Preservative**

**Adamant Deck Paint**

**C. A. Woolsey Paint & Color Co.  
JERSEY CITY, N. J., U. S. A.**

**MARINE PAINT SPECIALISTS**

## Cruising on a Dredge

(Continued from page 15)

"My first boat was Mabel, back about 1895, a sixty-footer with a pair of extremely heavy duty motors in her, that would run once in awhile." I tried to learn more about that first boat, but I judge he had no affectionate memory of her, and beyond engine trouble he did not seem able to recall anything else, which checks up perfectly with all other motor boating, thirty years ago. So I dropped that line of cross-questioning and he went on.

"My second yacht was the sailboat Norvis, of Rockport, Texas. I had taken to tarpon fishing and racing. We beat everything along the coast, and I became so absorbed in the sport that mother (the late Hetty Green) called me down and told me I had better go to work again. I followed her advice for a few years and then got interested in automobile racing, became an A. A. A. officer and ran the Vanderbilt Cup races.

"Mother got after me again about this time, so I went back and built a couple more railroads in Texas."

After that he owned a steam yacht called Texas, but by this time his ingenuity in the matter of boats began to work, so he purchased a lake steamer from the Crosby Steamship Company, pulled her out on the railway and lengthened her to 300 feet. She was known as the United States. Then he began to acquire speed boats, fitted up the United States with a heavy equipment of davits and adorned her with fast runabouts from stern to stern, naming them after the country's possessions. Before he got through, he had decorated her with the following tenders: Philippines, Hawaii, Porto Rico, Antilles and Alaska. The next move was to acquire the sixty-foot houseboat Day Dream to act as a comfortable means of reaching shore from the deeper draft monster.

Either this fleet of tenders was too much for her, or they offended her dignity, for eventually the United States ran on a rock in Buzzards Bay, sank, and Colonel Green forthwith lost interest in her. She was, however, subsequently raised, and is now back on the Great Lakes running as a passenger vessel.

I then turned to the beautiful yacht on which we were sitting, the Colonel. She is 135 feet long, 33 feet breadth, draws three and a half feet, is fitted with every conceivable comfort and immaculately kept up. Two 75 h.p. Dodge Diesels drive her at fair speed. "Where did you have her built?" I asked her owner.

"In several places," replied the Colonel, smiling broadly at me, now that he had thawed out a bit.

"Such as what?" I urged him.

"Well, some of her was built in one place in Jacksonville and some in another yard, and then I brought her down here and had her finished at a third place."

"How did you bring her down here—outside?"

"No, down the inside route."

"You don't mean to tell me you brought that leviathan down the canals?"

"Sure," said the Colonel. "I will try anything once."

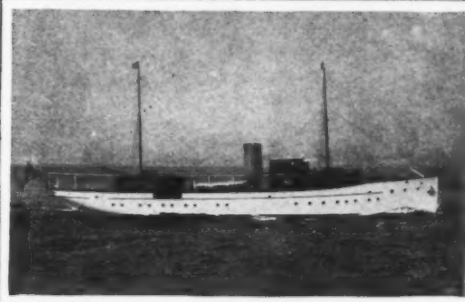
As a result of a series of questions, I found that he had cruised the length of Florida on a dredge. He had left off both upper decks, when she was first built, forward of the cabins. Aft of this point she was a regular houseboat—I might say a bear of a houseboat. Forward of that point, they built her into a dredge with a big donkey engine, a great mast and derrick, a three-quarter cubic yard dipper dredge, and a six-inch sand-sucker. Thus armed, they started down the inside route. The Colonel admitted she filled the canal all right. The suction was so great astern that every time they would pass a smaller boat, the latter would cease going ahead and come right along backwards after them. When they came to a bunch of trees that had grown out over the banks, they put the derrick to work and pulled them up by the roots. When they ran aground, they either dug up, or sucked up the obstruction, or if it were not too shoal, they would run a wire cable ahead a mile or so, hitch it onto a forest tree, start up the donkey engine, and skid themselves over.

If anyone but a sober and responsible citizen had told me this story, I would write it up in the form of fiction, not fact, but it is a fact that Colonel Green made the trip in twenty-four days, left a greatly improved waterway behind him, and then calmly tore off the dredging equipment, had his yacht completed, and now sits out forward and chuckles in a dignified way at his adventures. He is my idea of a real yachtsman.

## Gloucester—Cape Elizabeth Race

The Cruising Club of America has issued circulars describing the first annual race for auxiliary yachts, not over 50 feet overall, from Gloucester to Cape Elizabeth and return, a distance of 130 nautical miles. It is to be conducted on July 18, starting at 6 A. M., and vessels will be limited to 15 gallons of fuel, which may be used any time during the race. Information will be supplied by George Doane, P. O. Box 5253, Boston, Mass.

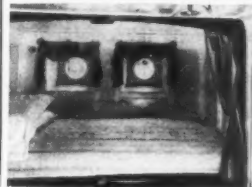
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The illustrations on this page are of the Motor Yacht "Alician", built and outfitted completely in 1924 in our Seattle, Washington Yards for Mr. C. W. Wiley, former Commodore Seattle Yacht Club.



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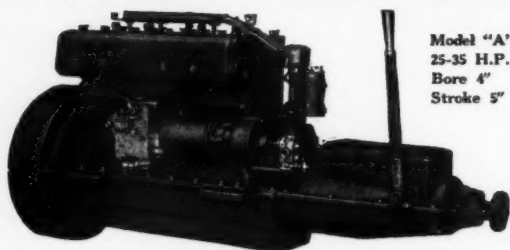
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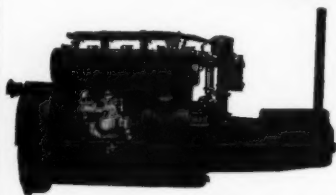
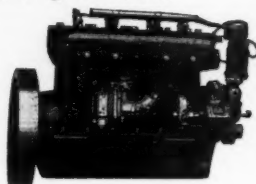


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## By Waterways to Gotham

(Continued from page 20)

bordering long narrow reaches of water that were as flat and blue in real life as upon the maps." And as a sibyl of old saw visions form in the fumes of her witch-fire, I gazed through the thin blue smoke above a motor purposely over-oiled while it ran off its factory stiffness and dreamed of a dream come true. Or rather, I had just got well started dreaming when Tellander spoiled it all by beginning a recital of how, four days previously, his yawl had been hove-to all night in a sixty-mile gale just a few miles to the north.

"You probably won't see another day like this to the end of your voyage," he added in conclusion. That from the man I had taken along for comfort and reassurance. And yet he was quite right, as the sequel proved. Never again were the conditions altogether right to conjure up once more the typical Great Lakes picture which had persisted through the years finally to lure me to plan the quiet water voyage upon which I was now embarked. But it was something to have the start melt into the ideal composition of the old picture anyhow.

A couple of miles of Milwaukee suburban homes, moulded persuasively to the contours of the hills back of the bluffs, was followed by a zone of ampler country estates, and these by great, rich, rolling farms, with endless lines of cattle winding down sylvan lanes to the big red barns and the milking sheds. The white beach and the green-streaked brown bluffs still ran on, but with few signs of life. Boat-houses were conspicuously absent. The lake-front was evidently the back-door of the countryside, and a very slightly used one at that. Along the open west shore of Lake Michigan the use of small boats is almost entirely confined to the insignificant stretches protected by break-waters.

The little motor was hitting smoothly and steadily, driving the heavily loaded boat at a speed which a check over a known distance between two points proved to be better than eight miles an hour. While this was much better than I had hoped for, especially until the motor had been thoroughly run in, I knew that the real test of power would not come until it had worked out in the broken water that was to be expected far more frequently than smooth. I was still somewhat dubious of the ability of an outboard motor to drive a heavily laden boat against hard seas, and I was distinctly apprehensive of what would be the effect of following seas slopping over it. Those were points upon which there would be ample opportunity for enhanced knowledge without long delay. For the present it was highly encouraging to find that I was getting so satisfactory a speed from a motor which could be tilted up at a moment's notice and leave me free to maneuver for a landing with the oars whenever the lake showed signs of developing a punitive mood. The feeling that I had an outfit that could be beached in an emergency, rather than to have to attempt to ride out a storm as an alternative to making a perhaps distant harbor, was an un-failing reassurance from first to last.

Passing Fox Point, fifteen miles north of Milwaukee, the dark sage-green depths of the waters under the bow faded through olive to glittering jade before a flutter of golden-brown light notes revealed that the sun was striking through to the sand and rocks of a rapidly shoaling bottom. Sheering sharply off until the liquid color symphony began to run the reverse of the scale toward the deeper green of ample depth, I headed back on the Port Washington course again. This maneuver was repeated twice or thrice in the next ten miles, where slender knife-like shoals stabbed lakeward for a mile or more from the shore. The shallowest of these had water enough and to spare for a craft of my draught, but there had not yet been a chance to study the chart and be sure. I had also been warned that the lowering of the lake level by the Chicago Drainage Canal made it necessary to deduct from two to three feet from the last charted soundings, so was not bent on taking chances in any event.

As a matter of fact, there are few if any shoals between Chicago and Green Bay dangerous to a craft of less than three feet draught at over half a mile from the shore. Beyond the mouth of Green Bay it is quite another story. For unexpected shoaling many miles from shore even the coral claws of the Great Barrier Reef northeast of Australia is not more treacherous than the north coasts of Lake Michigan and Lake Huron, including Georgian Bay. There is nothing more beautiful than the shifting colors thrown back through clear water from a shoaling bottom, but the ideal vantage from which to view it is an airplane or balloon rather than a scudding craft that is in danger of knocking off a propeller every time the color scale is keyed a note above dun-green. That took the poetry out of

(Continued on page 110)

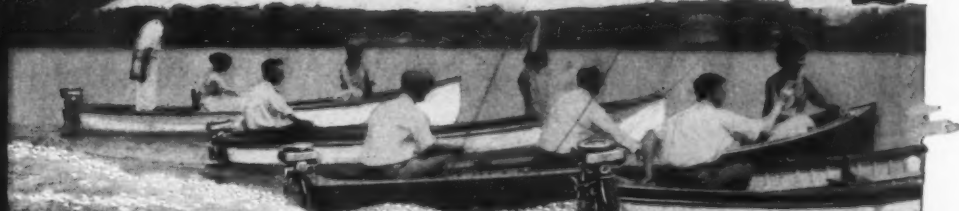


As you read Lewis R. Freeman's gripping story, "By Waterways to Gotham," in this issue of Motor Boating, remember it was Elto—the Fast Light Twin Outboard Motor that alone drove his 18-ft. skiff those 2,000 thrilling miles "from Milwaukee to the Sea."

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## Nothing Takes the Place of Power

- Whether you want to be *first* to get to the fishing grounds,
- Whether you want to cross the finish line first,
- Whether you are hungry and want to get back to camp in a hurry,
- Whether you want to give your friends a tow, or
- Whether you want to skip in ahead of a threatening storm, nothing takes the place of *Power*.

## And That's Why—

no other Motor quite takes the place of Elto. With Full 3 H.P. coming from its smooth-running Twin Cylinders in an endless flow, with its clean stream lines cutting the water like a knife, with its Atwater-Kent Uni-Sparker Ignition shooting long flashes of electric fire into the cylinders, with the Propello Pump pulling a constant stream of fresh, cooling water through the roomy water passages, no wonder Elto leaps across the waters with a speed none cares to challenge. You buy an Outboard Motor first of all for Power. You want a Motor that will *drive* your boat, with any load in any sea. You want speed,—you want action. You want safe rudder steering—automatic tilting—quick easy starting—sure-fire trouble-proof ignition—a cooling system that never clogs, never sticks, never fails. All these you get in Elto. And with them all, the lightest "one-hand carry" of all Motors per H.P. Write today for Free Catalog.

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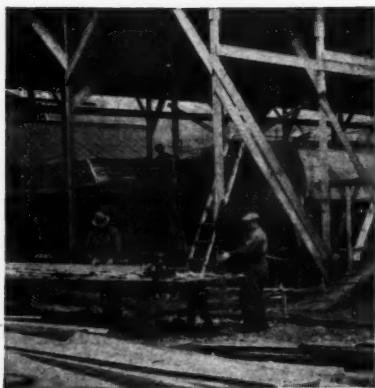
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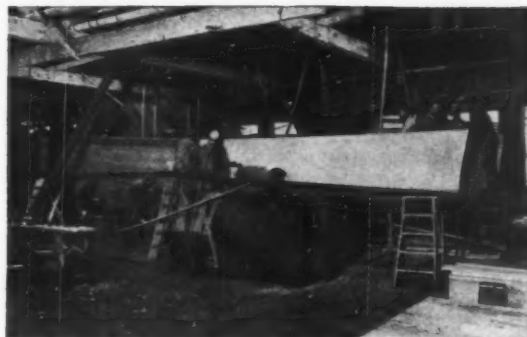
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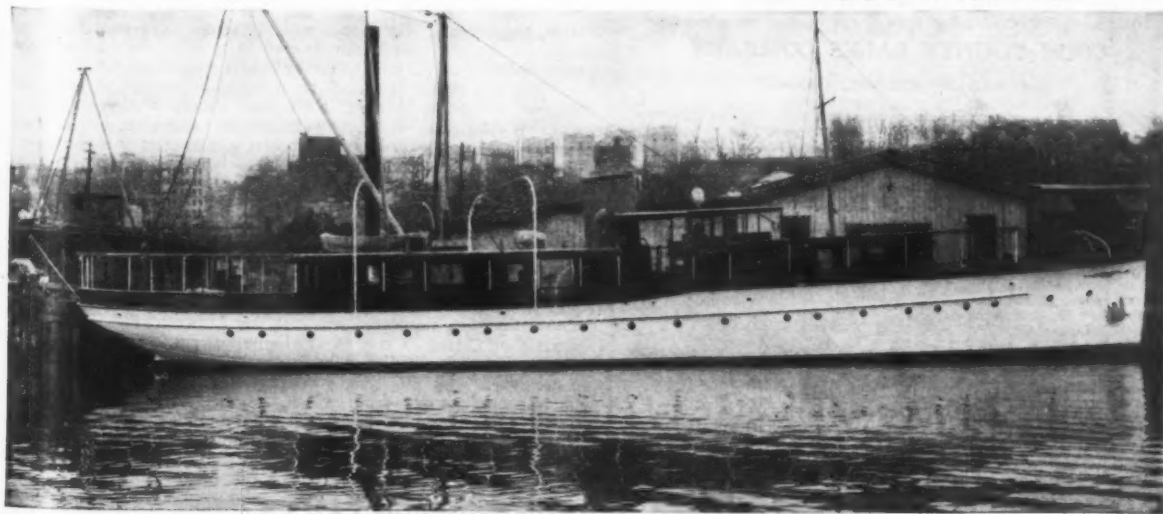
Part of the small boat building department showing 44-footer ordered for spring delivery.



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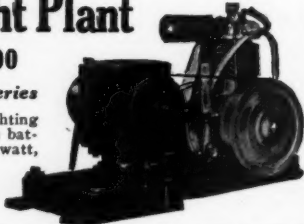
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## By Waterways to Gotham

(Continued from page 106)

the thing even before I had bumped; after I had replaced sheared propeller-pins all around the north end of Lake Huron I was in a condition that set me pulling imaginary tiller ropes every time a yellow patch of paper caught the tail of my eye on the pavement of a city street.

A church-spire pricked in dark silhouette against the sunset flush of the northwest was the first sign of Port Washington; then the loom of factories, with the dark blur of jetties running out from the shore-line. A fixed red light flashing out through the wine-dark shadows of the bluffs gave a bearing for the end of the north pier and guided us into the entrance of the channel of the artificial Y-shaped harbor just as the purple of twilight was deepening to the velvet of night. The last pop of the second filling of gasoline gave just way enough to slide the boat along to a mooring against the rotten log wall of the north basin. We had made the thirty-mile run in a little under four hours, and on exactly two gallons of gasoline.

What we had taken to be a welcoming delegation of natives waiting on the jetty to receive us turned out to be a party of friends from Milwaukee, who had motored over in the Evinrude car to bring some belated mail and, incidentally, a wonderfully appetizing supper basket. Leaving the boat in the care of a bunch of gamins, who swore to defend it to their last breaths from a rival gang of pirates who rendezvoused in an old cask hulk on the other side of the harbor, we kicked the cinders of the jetty from our feet and made al fresco banquet on the grassy banks of a cold spring above the beach.

Our gang was still on guard when Tellander and I returned to the boat a couple of hours later. There is nothing like giving street gamins a job and putting them on their honor. I daresay this same little band of swashbucklers would have looted our argosy from stern to stern had we tried to intimidate them with threats. As it was they hung on till midnight swapping yarns with us, and at dawn the next morning two of them came back dragging an anchor and a roller which they claimed had been the spoils of a recent raid on the craft of their rivals. I declined the sprawling mud-hook but accepted the roller with gratitude. It stood me in good stead on several occasions of real need.

Sleeping on the bank beside our boat, we rolled out at day-break and went over to the little town for breakfast. A distinct overnight change in weather conditions was apparent as soon as we came out on the lake-front. The sky overhead was still clear, but a brisk, steadily purring, purposeful little breeze from the southeast gave an unmistakable impression that it was going somewhere to equalize the pressure in a sizable hole in the atmosphere. With no place at which a weather forecast could be obtained at that hour, we consulted the barometer in front of a local drugstore, to find that the optimistic 29.55 of the previous evening was down twenty points and still dropping. Checking this with the notes under Wind-Barometer Indications in the compact little handbook of the Lake Michigan Yachting Association, we found a warning which seemed to fit the case in the following:

"When the wind sets in from points between south and southeast and the barometer falls steadily, a storm is approaching from the west or northwest, and its center will pass near or north of the observer within twelve to twenty-four hours, with wind shifting to the northwest by way of southwest and west."

While the threat was far from tangible enough to seem to warrant remaining in port, there was plainly a day ahead on which it was going to be in order to keep a weather-eye lifting, especially along toward evening when whatever it was that was brewing up to the northwest began to boil over. Accordingly, we cast off at seven, determined to keep within easy reach of the beach all day.

A half-hour's spell at the oars by way of warming up proved the boat's pulling qualities all that her fine lines promised. A few miles north of Port Washington we came to the first pound net, forming what appeared to be an impassable barrier reaching from near the beach for a mile or two into the lake. These nets are supported by lines run between piles and reach from the surface of the water to the bottom. This completely blocks the path of all fish entering the zone of a net, with the consequence that they finally work along into one of the series of traps or pounds, from which they are lifted by the fishing boats. On account of the great cost of building and maintaining the nets, this is perhaps the most expensive form of fishing and is only warranted where sufficiently large catches are calculated to pay adequate returns on the investment.

Exploring the first net barrier under oars, we found, just

(Continued on page 118)





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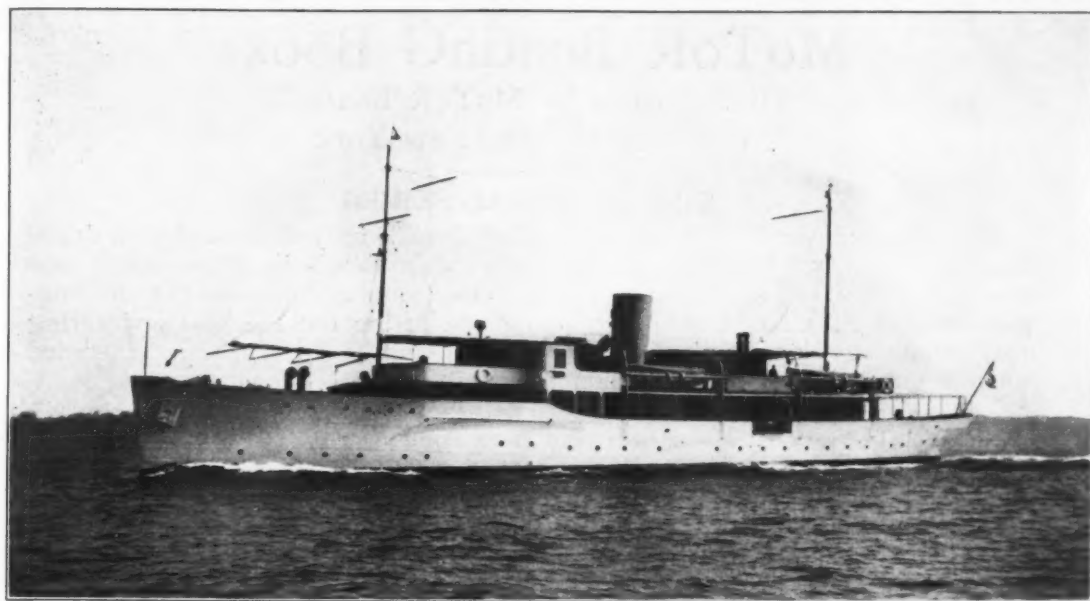


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Yacht Ohio. Owner, E. W. Scripps.

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*Brown - Chief Engineer.*

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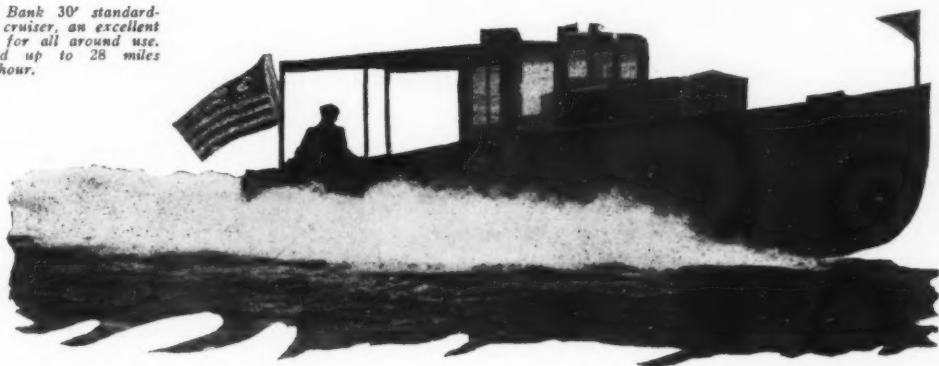
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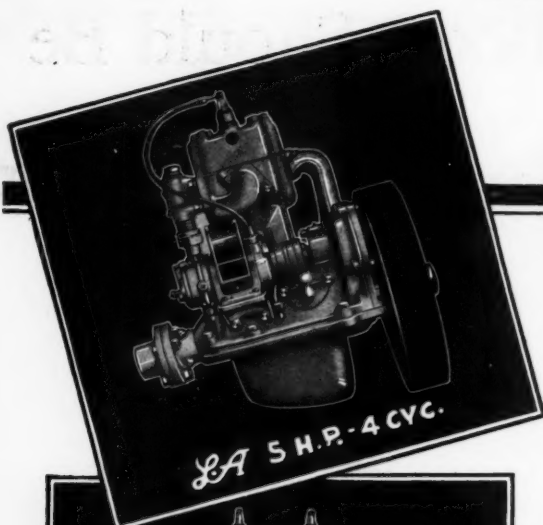
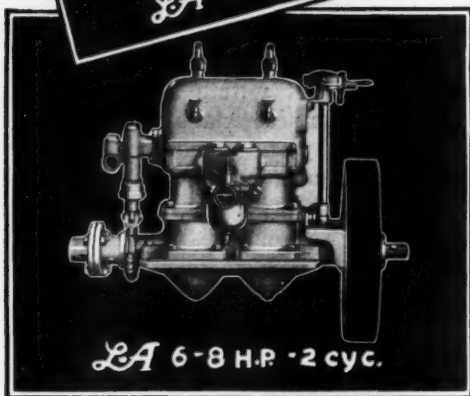
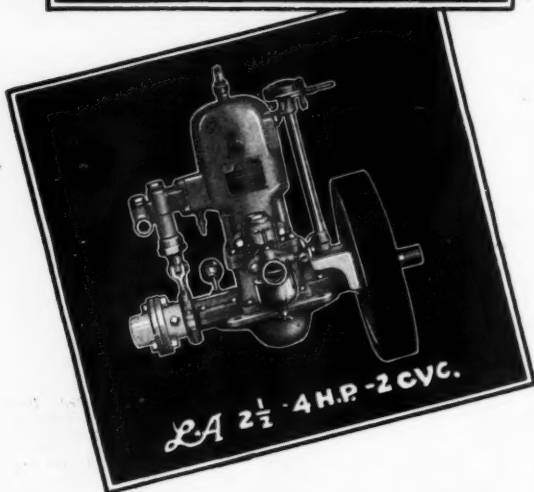
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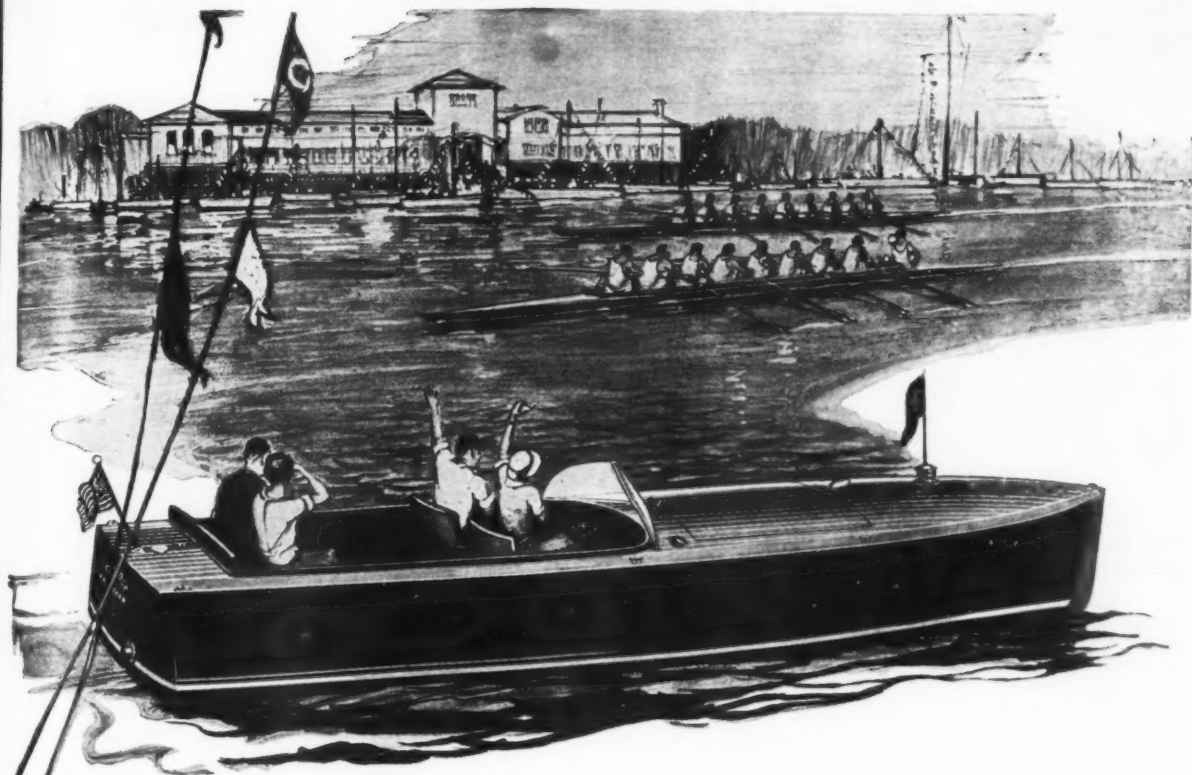
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*The* **Main Sheet**

**3101 Woodward Avenue  
DETROIT**

## By Waterways to Gotham

(Continued from page 110)

outside of one of the pounds, a place where the supporting rope was lowered sufficiently to allow the passage of the boat. We subsequently discovered that this opening was a regular feature, provided to facilitate the movements of the small craft of the fishermen in lifting a catch. By keeping careful watch, we soon learned how to shoot the boat through by shutting off the motor and tilting the propeller without recourse to the oars.

Slowed down materially by our zigzag course through the almost interminable series of nets, it was eleven o'clock before we headed into Sheboygan Harbor, twenty-five north of Port Washington. We could have saved time by lurching in the boat and pushing on ahead, but, with the wind freshening and the clouds piling ominously in the northwest, it seemed wisest to run in for a word of advice from the Coast Guard station.

Sheboygan Harbor is typical of practically every port along the open west coast of Lake Michigan. The muddy estuary of a little river breaking through the bluffs determined the location, and the harbor—the earliest work upon which dates back over fifty years—was made by dredging a channel through the bar to the slough and protecting it with jetties. As the convenient logs from the then near-by forests were used for piers and jetties in the first instance, with repairs and replacements continuing to be made in the same perishable material, the works of all, except the large terminal ports of Lake Michigan, are far from modern.

The Coast Guard station, spotlessly white buildings in the midst of green lawns, is located near the inner end of the old north pier stub. The captain, who had already been advised from Milwaukee to be on the watch for our boat in one form or another, received us most kindly and appeared highly interested in the voyage. He had received a warning of violent thunder squalls accompanied by high winds, but from his own observations was inclined to the opinion that the weight of the onslaught would be felt farther south. As we would be running away from the center of the disturbance, he thought we would be safe enough in pushing ahead, especially if we kept in close and made a point of landing in event the west began to look too black.

Knowing this was the advice of an old lake sailor, thoroughly familiar with the coast and the limitations of our craft, we had no hesitation in following it. The fact that he already knew something of Tellander's reputation as a small boat sailor doubtless had a good deal to do with the fact that the captain was ready to let us take the chance. Your average landsman, under similar circumstances, would have greatly exaggerated dangers of which he had no real comprehension and tried to frighten us into keeping port for a week.

After having lunch in Sheboygan—a prosperous lumbering and manufacturing town, backed by rich agricultural country—we got under way again at two, hoping to make a direct run to Two Rivers, where the next Coast Guard station was located. The most direct course took us from two to three miles off shore, and along this we bowled at a fine rate before the small but lively seas kicked up by the freshening southeast wind. An occasional lop flipped over the starboard quarter, but considering her slight freeboard the boat made excellent weather of it.

Toward four o'clock, with the thunderheads starting to boil up purple-black from some devil's cauldron over beyond the western hills, I began to edge shoreward. Although the squalls were plainly working southeasterly in a way that promised to bring them to the lake some miles astern, I was too familiar with the trick of their South Pacific brethren to work back and spring an unexpected ambush to take too many chances. In spite of an apparent tendency to maneuver for a little surprise of this kind, the general direction of the storm continued just southerly enough to give us a comfortable berth. But where they were breaking upon the coast, but a few miles south of Sheboygan, the effect was positively cyclonic. Shot through and through with forked shafts of lightning, sinister cylinders of cloud rose above the amorphous mass of the driving storm like the turrets of a firing battleship. Mingled sunlight and lightning filtered through the churning clouds to cast lurid patches of glow, like the fumes from sulphur and molten copper, on wind-flattened forests that were only less black than the ebony waters of lake.

But all that turmoil was miles astern of us. The only time we appeared to be actively threatened was when a wildly spinning whirl of murky nimbus—a sort of looting camp-follower of the main army—flew off on a tangent from the parent mass and came charging down on us like a bull at a gate. That was

(Continued on page 120)





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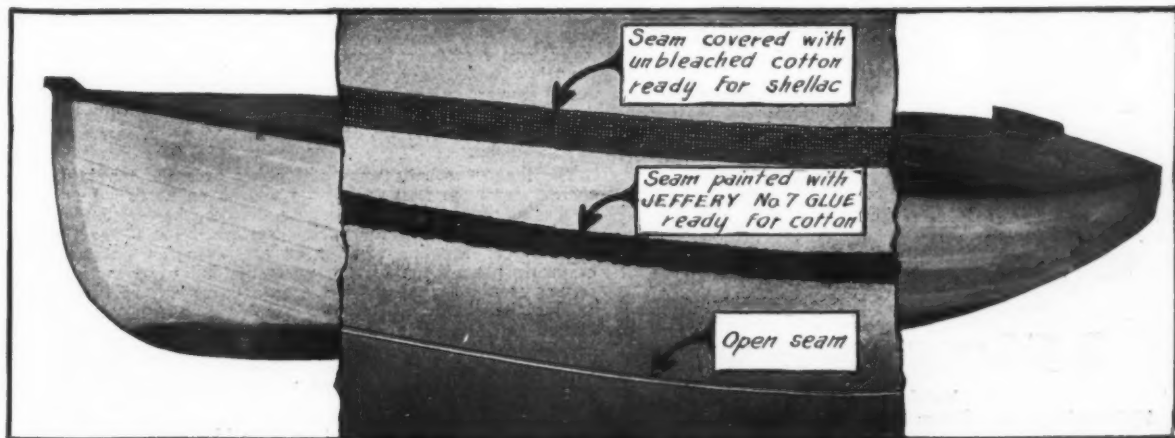
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## THE MILLER WAVE OPERATED BILGE PUMP



is on the job, ridding your boat of rain water or leakage.

Every roll of the boat, caused by wind or wave, works the pump.

An insurance against sudden leaks. No boat should be without one.

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No. 1 for boats up to 20 ft.

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Dealers! A few territories still open.

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A space-saver in the cabin or on deck.  
Diameter of seat, 11"

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Finished in oak or in mahogany or birch

Your dealer can supply you, if not, write to us.

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Manufacturers

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## By Waterways to Gotham

(Continued from page 118)

just the sort of an attack we had been expecting, and, already in slickers and sou'-westers, we were making quick work of the scant three hundred yards to a clear loop of soft beach when the roaring amok succumbed to the southerly drive of the higher air currents and was hustled back into line. It missed us by a good quarter of a mile, with nothing but scurrying gusts of icy air and a spiteful spatter of hail to show what had been in pickle for us.

Inky clouds continued to boil up from behind the western hills all afternoon, but without driving close enough to our course to be more than potentially threatening. Not many miles to the south, however, it was plain that a storm of near-cyclonic intensity was raging. It was with no surprise, therefore, that we read in papers picked up the following day of very considerable destruction by hail and violent winds in Milwaukee, Racine and the farming region to the west.

On the whole, in demonstrating how comparatively easy it was to get into a position to land before a storm became dangerous, the experience was as reassuring as exhilarating. As a matter of fact, it was just a bit too reassuring. A black, blustering storm that one can see coming ten miles away is only one of the fifty-seven varieties of meteorological disturbances tucked away in the capacious weather-bag of the Great Lakes to be loosed with careless impartiality upon the wary and unwary alike.

Our dodge shoreward had carried us well inside a shallow bay that must have once been the harbor of the little picture-book village discovered as soon as the passing of the squall menace let us take our eyes off the heavens and bring them back to land and lake. Doubtless a live lumber port many years previously, the railroad and the steamers had passed it by, leaving it in a back-water behind the rotting piling of its once busy docks, just a straggle of apple- and lilac-bloom smothered houses bordering a grassy road running down to the beach. Alluring as a drop-curtain scene, as we saw it in the transforming light of a calcium-like glow where the sun strained through the silver lining of a storm-cloud, we were saved the disillusionment which must inevitably have followed a landing by the necessity of pushing on while the going was good.

Two little sirens in gingham, perched Lorelei-like with idle fish-poles on the end of the battered pier, volunteered that the name of the dream-village was Centerville. When we begged to know what it was the center of, they looked at us quite blankly, entirely at a loss for an answer. I have met the same surprised stare from the almond eyes of a Hangchow mandarin when I asked why they called China The Middle Kingdom. The pinnacle of unsophistication lies in fancying oneself in the heart of the great central Whorl of Things; also of hyper-sophistication. New Yorkers and Londoners are just a bit like the founders of Centerville and China in that respect.

But this particular brace of rail-birds was emancipated, broadened by travel and contact with the world. They had been to Manitowoc, all the way round the next point. Now that was a town for you; not like Centerville, which wasn't no kind of a place nohow, with no movies or nothin'. Now Manitowoc—we weren't bound for Manitowoc, by any chance, were we? And would we mind—

Sensing the imminent descent of upwards of two hundred pounds more of ill-stowable ballast into my overloaded boat, I spun the fly-wheel with hard-flipped wrist and put a broadening wake of bubbles between our stern and danger. It has never been recorded what was said by the sirens of old when the triple-banked oars of a galley backed water and slid away out of danger. All this pair said was, "Fraid cat! 'Fraid cat!" many times repeated. They were quite right, too. I doubt if the night-yodelling ladies of Scylla and Charybdis ever taunted in better point.

The thunder squalls were still going over the top in their charges from the western hills as we ran on north before the freshening southeasterly wind. As the deep bay leading in to Manitowoc opened up we had to decide between following the coast-line or standing straight on across to Two Rivers, as originally planned. With the west still full of dynamite, the former would have been the safer and more sensible course. It was the chance of spending the night at a Coast Guard station and being five miles farther along in the morning that decided in favor of the direct run to Two Rivers. It was just the sort of thing that Captain Kincaide had warned against doing in unsettled weather, and it was largely fool's luck that there was no penalty to pay.

(Continued on page 124)

# KOVEN

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Special fuel tank oil storage.



Air whistle tank.

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Special stern tank around rudder post.

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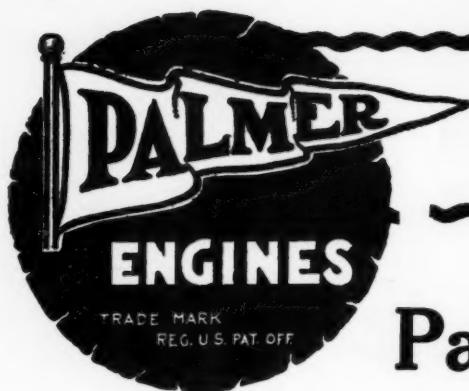
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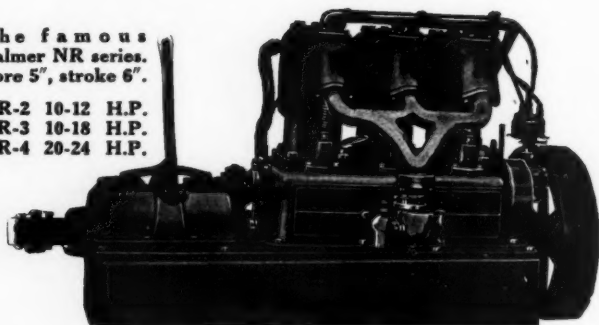
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*The difference will surprise you*

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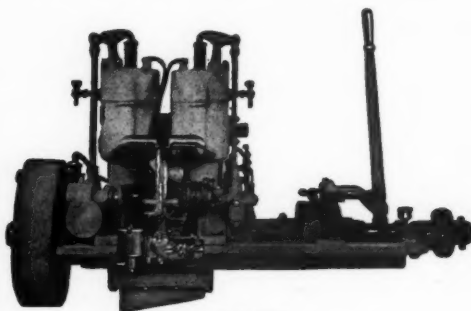
NR-2 10-12 H.P.  
NR-3 10-18 H.P.  
NR-4 20-24 H.P.



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This organization has long been recognized as the producers of the largest and most complete line of marine engines on the market, including both four cycle and two cycle engines. Recently the Palmer YT-2 was introduced—the vast number of this model sold and the popular accord it received everywhere proves that Palmer principles are right.

A brute in a small package describes the YT-2. Individual cylinders with detachable heads. Combination splash and force feed oiling system. Counter balanced crankshaft. All bearings are bronze backed die cast and interchangeable. Ignition, high tension magneto, equipped with impulse coupling, assuring easy starting.



Model YT2

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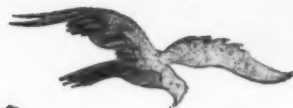
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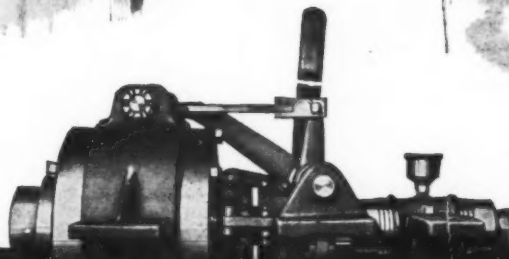
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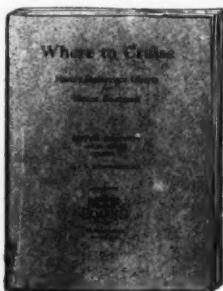
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## By Waterways to Gotham

(Continued from page 120)

The breeze augmented considerably in force as we stood out across the bay, and in an astonishingly short space of time had rolled up seas of real weight and bulk. The boat rose buoyantly to the lift of them, but from the troughs their sizzling white crests loomed several feet above our heads. None of them was quite able to put green water over the stern, though time and again they burned their noses on the hot cylinders of the motor in their eager attempts. The boat yawed wildly before the quartering seas so that holding to anything like a straight course became a difficult task. I was unfeignedly glad when we drove in past the breakwater light and ran on in quiet water to the Coast Guard station at the inner end of the north pier.

The captain of the station, saying that the forecast was for a heavy storm during the night, had our boat lifted out on the slip and a place cleared for us to sleep in the boat-house. After dinner and a walk about the low-lying but picturesque little town, we returned to the station, where we sat up to a late hour while the man on watch told yarns of his years of service on the stormy north coast. There was less comfort in these recitals than I would have liked. According to the weatherbeaten old veteran, the whole north coast was a wilderness, with the shore rocky and shoal-beset, and with no inhabitants but a few fishermen. I was a bit cheered when it finally transpired that he had never really been there. I was soon to learn, however, that the altogether forbidding picture was by no means an exaggerated one.

(To be continued)

In the next chapter the voyage of the 18-foot boat, driven only by a little outboard engine, is continued. A picturesque run along the lake to the canal at Sturgeon Bay and the entrance to Green Bay is followed by an interesting run through this bay. A delightful camp site turns out to be full of mosquitoes and camp was hurriedly broken in the morning to escape the pests. His passenger who had accompanied him thus far leaves, and the journey is continued alone. A real test of the seaworthiness of both boat and engine prove to be satisfactory, and a stormy passage to St. Martin's light is made without mishap. The gathering storm comes in during the night in full force, and the journey is temporarily delayed until it calms down again.

## Offshore Bottle Fishing

(Continued from page 26)

pret' low but they stop train, swing bridge and let us through. Then slam bridge shut and train move over. Police boat nearly broke his nose when bridge swing. He dam, dam loud but bridge tender say 'Who you are? What about these noise?' 'New York City Police Boat! You let us trough.' Bridge tender say—'O! are you? You go to hell—in Jersey now.'

"'Nother time we unload on dock and two motor cycle cops ride right on dock. We hear engines come and hide, then hold 'em up with gun 'till truck gets cases loaded. Then we take spark plugs out motor cycles and throw overboard. Take guns away from cops too. But they good fellows so we give each hundred dollar and mail guns back next day."

"But were you never caught?"

"Well one time we got load and law got big boat faster and can't get away. They tie us up and tow in; put me and another wop in hatch.

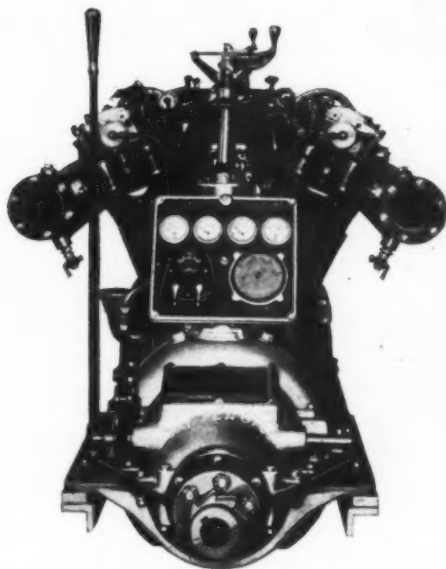
"Pret' tight place. Snap lock on hatch outside. So no one watch. Tell office got two bootlegger. Some fellows on dock look in port hole and we say 'You let us out this one time. We no ask you again—sometime. Please mister, just this one time.' Nobody look, all busy wit talk—got two bootlegger, so fella open lock and we out and go up hill. We look back after get breath and they put five, six cases under dock and holler 'Prisoners escape! Prisoners escape!' Run around, mix up everybody. Some one start knock holes in hill with 45, but we on other side. What they could do wit those fellas for let us out? Not'in 's right! How the law know who? Can't prove notin'."

When conditions were favorable Banty says he made \$1,500.00 a night. He ran cargoes on the Jersey Coast and clear up to Philadelphia. Some runs totalled 300 miles a round trip, taking the whole night. These trips were usually forced by close watch of inlets by prohibition men. He has been on the rocks, salvaged his boat, had it dragged in on ocean bottom for three miles, rebuilt what was left of the hull and started in again. He has made money and he won't quit until the game gets him. He likes it.

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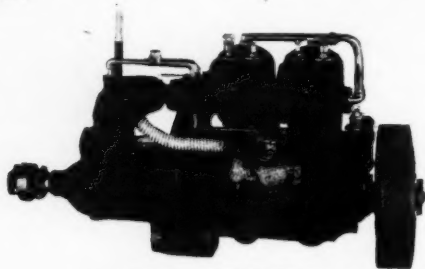
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## Among the Glaciers of Alaska

(Continued from page 23)

preparatory to shoving off on a fifteen-day reservert cruise to Alaska. Wiedey and I went aboard, and were assigned to officers' quarters—not as reserverts, or members of navy personnel; but as guests of the Secretary of the Navy.

There were several reasons why we had decided to undertake this cruise from Alaska to the United States rather than from the United States to Alaska. The primary consideration was the fact that by going over the route with a larger vessel than our own, we would gain much information regarding salt water river navigation—information of the kind that is not to be obtained otherwise. We were getting away to a rather late start for the brief summer of those northern latitudes. Thus, by making the trip from the north, we were literally migrating southward ahead of the encroachment of winter, instead of going north to run into it. Consideration was also given to the fact that the prevailing wind direction of this region at this season of the year is south to southeast. So, by routing our trip southward we were taking what advantage we could of the prevailing winds rather than having them to contend with. We later discovered that in making the trip with so small a boat, these carefully thought-out advance arrangements were material aids to the success of the venture—a venture that became AD-venture many times before we saw Seattle again.

Eight days after the Eagle Boat left Seattle, we were landed bag and baggage at Juneau, the territorial capital of Alaska. There we soon began to discover many things. Today, there are two outstanding characteristics of Alaska among my memories of Alaska and Alaskans. The first is the wonderful hospitality of the people toward strangers in their land, and the second is the long summer days—days of 18 to 22 hours of daylight, with scarcely any night at all. The development of Alaska seems to be largely in the hands of people of Scandinavian and Scotch origin. In this vast country—the last real frontier of our country, these people seem to have found an environment approximating that of their native lands, but with the opportunities of the new and out of the way places. Family names such as Olsen, Larson, Jensen, Bomark, Anderson, Otterson; McKinnon, McDougal, Booth, McLachen, Dundas and Burns, predominate and indicate the origins of nationality.

We spent a week in and around Juneau, and during that time got acquainted with a major portion of the population of this thriving Alaskan metropolis of 3,000 inhabitants—everybody from Hon. Scott C. Bone, Governor of the territory, down to humble old wharf-rats who had lost miscellaneous fingers, toes, and ears, in the frigid winter climate of the back country. To the last man, they seemed to be genuinely interested in us and our affairs, and all ready to lend a hand to help us at anything from a heave on a line, to volunteering useful information, or inviting us in to have dinner. The writer has traveled on five of the continents of this earth, but nowhere else have I found such genuine whole-hearted hospitality as one finds in Alaska. It is undoubtedly the rigors of the country and its sparse population that creates this condition. People are simply compelled to be friendly with each other in a country where there are only about twenty-five thousand of them scattered over an area equivalent to one-third of the continental United States, and in some parts of which winter temperatures go to 60 and 70 degrees below zero with almost perpetual darkness.

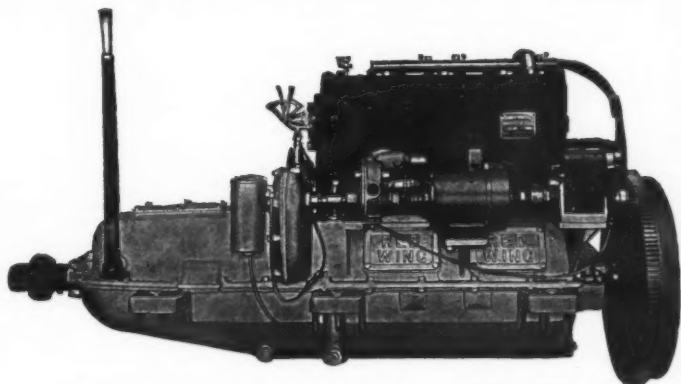
A discovery about southeastern Alaska that the visiting yachtsman is sure to make very quickly is that the region has some enormous tides. Juneau is situated at the foot of precipitous and perpetually snow-clad mountains and upon a great inlet of the so-called Inland Passages known as Gastineau Channel. In front of Juneau the channel is about a mile and a half wide. Opposite is a little island—Douglas Island—about as big as the states of Delaware and Rhode Island. Any ship ever built, or ever likely to be built can dock at Juneau, but a few miles up the channel toward Skagway, the waterway ceases to be navigable except for very small boats at high tide. The tides raise and lower the water levels about forty feet, so, at high tide, small craft may go on up the channel, and through the shallows known as Canoe Passage into The Lynn Canal. Large boats must go around Douglas Island, for Canoe Passage is high and dry at low tide. Once into Lynn Canal, there's about 300 fathoms of water up this ten mile wide canal for a hundred miles to Skagway. Just why this waterway—ten miles wide, a hundred miles long, 300 fathoms deep, and bounded by mountain walls towering to snow-clad elevations of 14,000 and 15,000 feet, should be called a CANAL, is a mystery. But, Alaska is a land of enormities. Mountains up to 12,000 feet elevation are only foothills, streams the size of the Mississippi at Minneapolis, are CREEKS; and the great fjord in front of Skagway is a CANAL. The only thing I found in Alaska that is really

(Continued on page 128)



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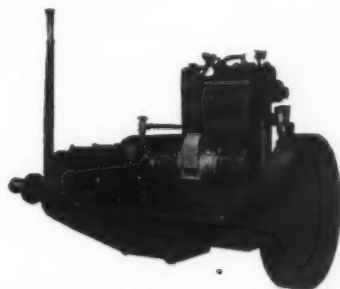
**RED WING MOTOR CO.**

Red Wing, Minn.

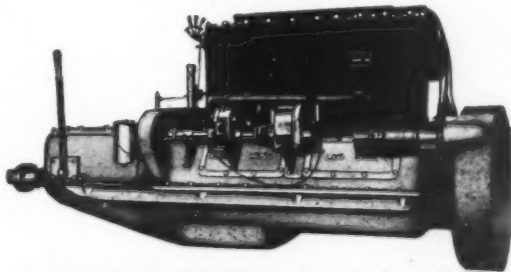
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Whether in a trim and handy cruiser, the fast runabout, or the everyday work boat, the consistent and dependable performance of the Red Wing makes friends for it everywhere. These engines not only have lots of power, but also that rugged endurance necessary to withstand the severest of marine usage. Add to this, their extremely quiet and smooth running qualities, the absolute reliability of these power plants, and the service given by this concern, 24 years old in marine experience, and you have the secret of "THOROBRED" popularity. Your choice of a Red Wing will mean much to you in lasting boating satisfaction.



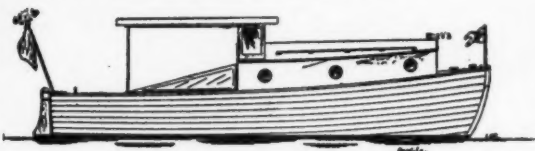
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RECOGNIZED leader in Class No. 1, standardized cruisers. Here is a sturdily built, seaworthy boat of handsome lines and wholesome accommodations; a real family cruiser. On this craft you will find all quality and no meaningless frills that boost production cost. It is the most remarkable cruiser value ever offered and has in back of it thirty years' experience of builders of good boats. A four-cylinder Kermath is regular equipment, giving a speed of 10 miles per hour.



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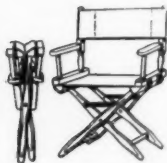
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## Among the Glaciers of Alaska

(Continued from page 126)

credited with having size is the Alaskan mosquito. Even Alaskans admit they've got 'em, and that they're the next thing to twist-drill humming birds with saxophone songs. Moreover, the Milky Way is only a bit of space compared with their numbers—these winger musicians that bite through your boot soles, and carry one away in fragments!

We got acquainted with the tides of Gastineau Channel when we attempted to launch our boat at Juneau. The little craft had been brought up from Seattle on the deck of the navy Eagle Boat. The Eagle Boat docked at ten o'clock at night, but it was still broad daylight, the sun being scarcely out of sight behind the lofty elevations of Douglas Island. Our diminutive craft was hoisted over the side, and set on the dock. Wiedey and I went to the Juneau Hotel, engaged a suite of rooms, and went to bed. Both of us were soon asleep. It seemed that I had been asleep for several hours, when I became awakened for some unknown reason. I opened my eyes and looked around. It was daylight—about as light as it is in New York City at seven o'clock on a mid-summer evening. I reached for my watch. It was 11:30. I rolled over, and went to sleep again. It seemed as if I had been asleep for hours and hours, when I woke up for the second time. Daylight with a harsh Arctic sun was pouring in the open windows. It must be nearly noon, I thought. Yet, there was not a sound from the streets below. Alaskans must be in the habit of sleeping very late. I looked at my watch again. It was 4 A. M. Trying to sleep through one of Alaska's daylight nights reminded me of the slumbers I used to try to get when my nights were turned into days as a police reporter on the *Los Angeles Express*. Alaskans live according to the clock, not by the hours of daylight and darkness. At seven o'clock in the morning, but with the sun almost where we'd expect to see it at noon, we breakfasted, and went to the dock with the idea of launching our boat at high tide. The tide was up within six or eight feet of the dock floor. There was a big hand derrick on the dock, which the wharfinger had given us permission to use—so, launching the boat would be an easy task—we thought. But, such jobs never seem to go off according to schedule. We fiddled around for some time rigging a rope sling on the boat, hooked the derrick block onto the sling, and hoisted the craft clear of the wharf deck. We swung the derrick boom around, and got the boat out over where we thought Gastineau Channel was going to be. But, the water wasn't exactly where we expected to find it. The receding tide had lowered the surface just about 38 feet. We began lowering the boat, contemplating that we'd be able to slide down the rope and go aboard. Once more we learned something about Alaskan tides. Our tackle lacked just about four feet of being long enough to set the boat down upon the surface level of the low tide. We didn't feel equal to the task of trying to hoist the boat back onto the dock again with the hand winchless, so we left it hanging there in mid-air until the tide came back to catch up with the craft from below.

Once we got our boat in the water, we possessed ourselves of the conventional mode of individual transportation which is to the southeastern Alaskan about what the flivver is to the Kansas farmer. With a boat in Alaska one is privileged to go just about anywhere that human beings have any occasion or desire to go. Without a boat, one has about the same degree of locomotion as a Chesapeake Bay oyster before it reaches the half-shell stage. Where should we cruise? That was the next question to be decided.

We wanted to see Skaguay—100 miles away, that historical old seaport that was the outfitting point for innumerable joys and heartaches in the days of Soapy Smith, and the Klondike gold stamped. So, we bought a few groceries, and shoved off up Gastineau Channel on the high tide the day after we got our boat in the water. Of course, we had to have a name for our craft. We christened her Ikigihk, Atlin Indian for Good Fishing, and cleared from Juneau with the Alaskan Capital as her port of registry. We put-put-put-put up Gastineau Channel, slipped through Canoe Passage on the hump of high water slack, and coasted down the hill into Lynn Canal when the tide began to fall. Lynn Canal resembles nothing quite so much as it does Lake Lucerne in Switzerland. I've boated on Lake Lucerne, and the Lynn Canal is just a second Lake Lucerne done on a little bigger scale, and with salt water substituted for the melted snows that flow down the River Rhine. But, Lynn Canal is moody. It may be like a mirror of late glass in the morning, and a seething, hissing, teakettle of commotion in the afternoon. It can kick up a sea in which no small boat can live when it is swept by a Taku, or Woolly Wind—those peculiar windstorms that occasionally lash down between its three mile high canyon walls from the tops of the Chilcoots.

(Continued on page 130)



## The NEW SUPER BEAR CAT

BEAR CATTING in the sunny South, on Northern lakes and rivers, or along the seaboard, offers the delights and thrills which nothing else can approach. It even brings your summer home in many cases to but a half hour's ride to the city and business.

The Super Bear Cat is a dependable and seaworthy runabout that attains speeds of more than forty miles per hour with the unrivaled 225 horsepower Hall-Scott marine motor. It carries ten passengers safely, swiftly and comfortably. Its luxurious fittings, perfectly appointed leather upholstery, smart Honduras mahogany streamline decks and hull with rakish windshield create a picture of unusual desirability and distinction.



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New Jersey Motors, Inc.

Keyport, N. J.

Your letter handed to me in regards as to what I think of your NJM Motors, as I am the party who handled the boat and engines in which Zane Grey caught the largest fish ever caught on rod and reel.

It sure gives me great pleasure to state that they are the finest motors I ever used in my years as boatman for Zane Grey. They worked great, and I want to state right here that, if they refused to start the first turn or stopped during the battle with these great fish, it would have been impossible for us to have caught them, and I recommend them to anybody wanting a reliable motor.

We are leaving here in a few days for the Islands in the Pacific to look for some large fish. We have a 32-foot and a 28-foot launch loaded on board the Fisherman; both have twin-screw NJM Motors. We are due in Los Angeles June 1st, 1925.

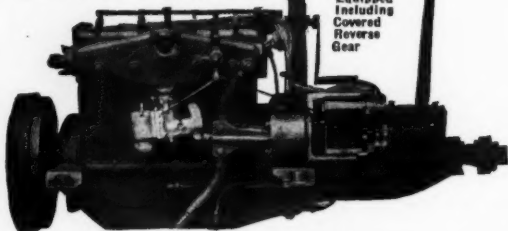
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Fully  
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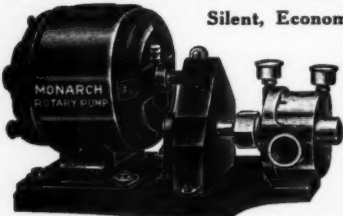
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This pump is used for flushing decks, pumping bilge or furnishing circulating water for heating systems or free running water to all parts of the boat. It's portable and can be used at home, in camp or factory. Free supply of water at all times assured. This pump is also supplied with the MONARCH ELECTRIC SELF-STARTER AND CUT OFF which automatically starts pump running when water in bilge reaches a certain height and automatically stops the pump when bilge is clear of water.

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**Get every ounce of speed  
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You'll be surprised at the speed that can be developed with a portable motor clamped to a Square Stern "Old Town Canoe." The light, sturdy "Old Town" construction and shallow draft make for minimum resistance. All possible energy is used in going forward. "Old Town" Square Stern Canoes are made with or without sponsons (air chambers).

The 1925 catalog shows all models, gives prices and complete information. It is free. Write for your copy today. OLD TOWN CANOE CO., 585 Middle Street, Old Town, Maine, U. S. A.

## Among the Glaciers of Alaska

(Continued from page 128)

We were fortunate, however, in catching favorable weather for our jaunt up Lynn Canal. Its surface was like a mill pond, and we covered the hundred miles in two days. The trip could have been made in less time, but we had no desire to hasten through such magnificent scenery, and through boating conditions so lovely as to fall a man's lot only about once in a lifetime.

Years ago, Skaguay was a city. It was the largest, fastest growing, and most thriving community in Alaska. It boasted a population of 10,000, but like many a good town, whose commercial life is founded upon a single industry, it began growing in reverse gear when the Yukon gold bug turned all six of its legs skyward and gasped for breath. Today, Skaguay has a population of about 300 souls—a few commercial fishermen, a few summer tourists, and a few thirsty sourdoughs heading over the Chilcoot Pass to White Horse to buy a bottle of bonded hooch at the Canadian Government liquor store. There's no housing problem there. Hundreds of houses are boarded up, others are sagging, or falling down. Shingles that have known neither paint nor nails for years are blown off in the Woolly Winds, and they stay off. Windows have been the targets for the small boy's stones. The yachtsman who desires to spend his summers in Skaguay may rent a furnished castle for \$10 a month, or a dollar a month, if that's all he desires to pay. The glory that was once Skaguay's is now only a memory—but a memory that will live for ages in the fiction tales of Rex Beach and Garrett P. Serviss.

Returning from Skaguay to Juneau, we didn't have such good luck with the weather. We had one day of good weather, and then a day of rain, which we spent in camp on a tiny island near Vanderbilt Reef, where a mast sticking up out of the water is all that's left of the S. S. Princess Sophia, which went down in 1921 with a loss of 198 lives. The third day we got fair weather, but along with it—a Taku, a wind that took Ikigihk southward under reefed sail, so fast that we steered with the rudder. No motor could have kept up with the sail. Although we were running before the wind, with the waves of Lynn Canal leaping at our stern like a pack of hungry jackals, there were times when Wiedey decided he could heave water overboard faster with a bucket than he could with a bilge pump. Somehow or other we managed to keep our little cockleshell afloat. We arrived off the entrance of Canoe Passage on the right tide, but missed the hole before we could drop the sail. There was no turning back. It would have been suicide to have attempted it, so we hauled up the sail again, and ran before the wind completely around Douglas Island. We passed up passenger steamers going in our direction, and seldom touched the water except to bounce from the top of one wave to the peak of the wave ahead. There really wasn't much danger of swamping because the waves simply couldn't catch up with us. Late in the afternoon we had ridden the Taku into Stevens Passage, where the storm seemed to have blown itself out. The sail became a useless rag. We installed the motor and put-put-ed around the lower end of Douglas Island into Gastineau Channel, and met the tide coming out. It took us from six o'clock until eleven to push up the ten miles of Gastineau Channel from Stevens Passage to Juneau. Nevertheless, it was still daylight when we got there, cold, wet, and hungry.

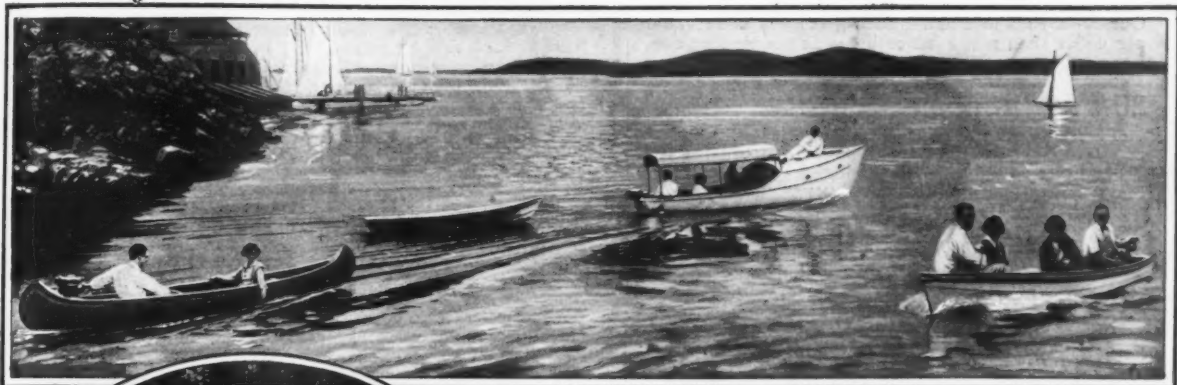
Seattle was still a thousand miles away, and the long Alaskan days were beginning to grow shorter—betokening the encroachments of winter. There was no time to be lost, so we sailed southward the following morning, with Twin Glacier Camp on the Taku River, 35 miles south of Juneau as the destination to be reached at the end of our first day's southward cruising. Twin Glacier Camp is the hunting lodge of Dr. H. C. DeVighe, a Juneau physician and sportsman with whom we had become acquainted during our sojourn in the Alaskan Capital. He gave us a letter to Mrs. Felix Gray, caretaker of the camp; and bade us go there, and make ourselves at home.

All morning we cruised down Stevens Passage, and toward noon turned into the entrance of Taku Inlet. About this time a monstrous mountain of emerald green and chalky white loomed up ahead of us. It was the first iceberg encountered on the southward cruise. This particular berg appeared to be about five acres in area, and stuck up out of the water some 60 or 75 feet. We headed toward it to get a closer view, but when we got within about three hundred yards of it, the berg suddenly decided to turn turtle. It rolled over like a sick cow, sank down almost out of sight, and then began bobbing slowly up and down. By this time we had changed our course. We were going straight away from the iceberg—boosted along on the crest of monstrous swells that seemed to be higher than the berg itself when we were alongside it. But, we'd learned some-

(Continued on page 132)



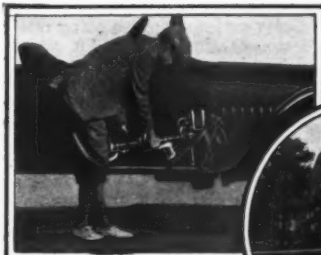
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## Among the Glaciers of Alaska

*(Continued from page 130)*

thing. We were assured that icebergs are dangerous playmates for small boats.

Although we sought to give all icebergs as wide a berth as possible thereafter, a certain amount of uncomfortably close association with them was unavoidable in navigating Taku Inlet. The whole inlet was so full of floating ice that they could have been avoided only by turning tail, and hauling out of the inlet. These bergs are merely fragments of glacial ice that topple off the ends of Taku Glacier, Norris Glacier, Twin Glaciers, and a miscellaneous assortment of glaciers that discharge into Taku River and Taku Inlet. The bergs ranged in size from pieces of ice no bigger than a man's head to great chunks of iridescent emerald green and white as big as the biggest office building in America. The big bergs, of course, were easily avoided. It was the little ones that really endangered us. Any one who has ever observed a piece of ice in a drinking glass knows that ice floats with only about one-eighth of its bulk out of the water. So, a berg that appeared to be no bigger than a man's head on the surface, would in reality be a chunk weighing perhaps 100 or 150 pounds—all that would be necessary to have torn the entire bottom out of Ikigihk's spruce planking had we run afoul of one full speed ahead. Before we had gone very far up Taku Inlet, we found it necessary to adjust the water pump on the motor to reduce the quantity of water flowing through the cylinder jacket. The water was at such a low temperature that the motor could not attain proper thermal efficiency until this change in the water pump adjustment was made. In adjusting the pump it was necessary for me to get my hands in the water. Almost instantly every joint, and my fingers, ached as if they'd been pounded with a mallet. In about half a minute those members became totally paralyzed. Getting overboard in such water is not a pleasant thought to contemplate. No matter what kind of a swimmer one might be, he'd have about the chance of a blind mouse at a cat convention. I had previously learned that among native Alaskans only about one out of a hundred can swim a single stroke. They virtually live on the water, and do most of their travelling in boats, but it's the hundredth man who is a swimmer. If one is found among them who can swim, he has learned to swim elsewhere.

We entered Taku Inlet on the inflowing tide. This helped our speed, but added nothing to our safety from the menace of icebergs. All the bergs that had gone visiting down in Stevens Passage during the day, were migrating back up Taku Inlet in the inflowing tide. Many times we found it necessary to go dangerously near gigantic cornices of ice in order to pass between two mountains of refrigeration material. In some places the inlet was almost choked with ice, and as we wiggled along through the floes, no peace of mind was added by the fact that the shores were sometimes two and three miles away—and those shores' perpendicular walls of ice-scoured rock where a landing would have been impossible. Moreover, when this mass was hurtling along up the inlet on an eight knot current, the prospect of getting caught between two bergs was anything but a nerve tonic. Every now and then we'd see two bergs try to elbow each other out of the channel. They'd strike with a roar that set the surrounding landscape echoing for miles around. Down into the water would go tons and tons of ice from the points of contact on the two bergs, and then all the surrounding icebergs would hurl back the accumulated echoes. The trip up Taku inlet was a real adventure—a scene, and an experience to be remembered forever. But, while it lasted, I'll admit there was some satisfaction in the thought that my life insurance policies are of the incontestable variety—the kind that pays, even for suicide!

We got alongside Taku Glacier just as the sun began getting down to the point to produce sunset colors. Trying to describe a live glacier is an almost impossible task. It is too much like trying to describe the Grand Canyon of Arizona—a thing utterly indescribable. Then put the sunset colors onto Taku, and the finishing touch of indescribability is added. Imagine, yourself if you can, sitting at the helm of a sixteen-foot motor boat, cruising along the face of a perpendicular ice wall 350 feet high, and ten miles long. You're pretty busy dodging floating icebergs. Every few seconds a few million tons of ice topples off the summit of the glacier and goes crashing down into the water with a roar like a 16-inch naval gun. When these ice masses come down, there's something else going to happen soon—you're going to get a sample of what the north Atlantic is like in a sixteen foot boat in a storm. Tremendous waves go hurtling out across the inlet from the face of the glacier. A mountain of water comes rolling toward you, and you swing the bow around to take it nose on. For a few breathless seconds you're out to break all altitude records—going up almost perpendicularly. But the summit of the wave slides under the keel, and your little cockleshell goes careening wildly down the back-

*(Continued on page 138)*

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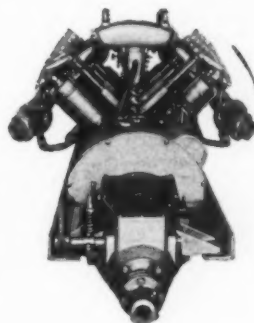
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Write in, now, for illustrated catalogue fully describing the Chris-Craft, and which holds great interest for anyone at all interested in boats. Why not let us hear from you *now*, at once?

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# Yard and Shop

(Continued from page 66)

## Boats Instead of Autos?

Why not substitute speed boats for automobiles in cities where it is possible to utilize waterways instead of congested boulevards?

"And why not?" asks William E. Scripps, head of the Scripps Motor Company, Detroit, Mich., who is in Miami, Fla., spending the winter months and supervising the installation of motors in speed boats which take part in a big regatta.

"In Miami especially," says Mr. Scripps, "it would be perfectly plausible and sensible for the commuter to use a speed boat in place of an automobile. I am thinking particularly of the Coral Gables Waterway, which traverses a big residential section and leads to Biscayne Bay. People living along the stream could own a speed boat, operate it cheaply and save a great deal of time."

The Coral Gables waterway, of which Mr. Scripps speaks, traverses Coral Gables, Miami Riviera, the largest suburb development in the country. It comprises 10,000 acres.

Mr. Scripps is head of the company which designed and manufactured the motors for the races. The motors are six-cylinder, four-cycle, developing about 100 h.p. The boats are 18 feet long and will carry two passengers.

Such boats as these were suggested by Mr. Scripps in speaking of the commuting-by-water plan.

## Longer Life for Reverse Gears

The first known friction started a fire. The savage made good use of this fact and rubbed wood against wood to produce a flame. Here can be seen the problem of lubrication that became apparent when a cart wheel evolved from the cross section of a rolling log. So the wheel was the first piece of moving machinery that required a study of lubrication.

First came fats, then whale oil, then crude oil. Machinery progressed with a sudden jump. Crude oil with the methods of refining made possible fast moving machinery of various kinds—and various kinds of machines required different refining of crude oil to suit specific problems of lubrication.

What kept a set of ball bearings separated from their raceways would not do for a differential. What efficiently took the rub out of a piece of shafting would not properly lubricate an engine. Even different refining was needed for engines—one kind of oil for warm weather and another for cold—heavy duty and light duty, and so on. The refining of crude oils came under the microscope of the chemist. Greases and oils were built up to suit different speeds, pressures, conditions, weathers and types of machinery. Each piece of mechanism now has its own specially refined grease or oil, so that it can give the utmost in power and speed with the least amount of effort and wear.

When a piece of machinery was forced to turn on a lubricant that was adapted for some other purpose—parts wore out. Either the body was too thick or too thin for the pressure and the duty to perform. While this difference would not show itself over a short period—the product designed by the manufacturer to last many years went out of service long before its time.

Selection of the right kind of lubricant for the right purpose has been in practice among boatmen with their engine oils, engine greases, shaft greases and other boat parts—with one exception. The boatmen who took care that the right lubricant went between the right moving part, used any kind of grease or oil in his reverse gear. That this practice caused the wearing of parts and shortened the life of the gear became evident when letters were written to the Paragon Gear Works asking if there was a special reverse gear grease made.

Five years ago this company combined its reverse gear skill with the lubricating knowledge of the U. S. Oil Company and made a complete investigation of the conditions a lubricant faces when operating on reverse gears. The very nature of the duties reverse gears perform, the many moving, interlocking, sliding and meshing parts were found to require a special type of lubrication.

When a lubricant is examined under a microscope, it is seen to be made up of millions of molecules. It is these molecules that form a cushion between parts and keep them from touching. The worth of an oil or grease as a lubricant depends on the toughness and ability of these molecules to act as a separator. If they break down, the lubricant gets thin and parts touch. It was, therefore, the problem of the Paragon Gear Works and the U. S. Oil Company to build up a lubricant whose molecules stood the conditions peculiar to reverse gear operation.

After five years of experimenting, testing and refining, a special grease and oil has been perfected for the one specific duty of properly lubricating all makes of reverse gears. Consistency

was worked out to suit gear conditions—thin enough to crawl to every moving part and work between discs without gumming, and thick enough to hold its body against the lashing of many gears. This last point has been so successfully accomplished that the grease does not run out of the gear joints. Formerly this running grease was regarded by the boatmen only as an annoyance that dirtied his boat. It can now be seen that this was a sign that the gear parts were breaking down the molecules which meant parts were wearing.

This special lubricant has been named Grezagere in both grease and oil form.

For consumer purposes Grezagere Grease is packed in one pound metal cans, in five-pound cans, and ten-pound cans. Grezagere Oil for enclosed type reverse gears is put up in one-gallon and five-gallon cans. Both forms of Grezagere may be bought from dealers or from the Paragon Gear Works directly at Taunton, Mass.

For dealers, Grezagere Grease is packed in the following unbroken cases of 48 one-pound cans each—24 five-pound cans each—and 4 ten-pound cans, each Grezagere Oil—12 one-gallon cans each.

## World's Oldest Outboard Still in Use

The world's oldest outboard motor has been unearthed—but unearthed is hardly the right word to use, for this 15-year-old horse-and-a-half Evinrude was still humming along, day in and day out, when located. Its owner, Geo. H. Craig of Altoona, Pa., was loath to part with it.

All this is the result of a contest held recently by the Evinrude Motor Co. of Milwaukee to discover how old the oldest Evinrude was. Hundreds of motors were entered in the contest, all from five to fifteen years old. Mr. Craig's Evinrude was the twelfth outboard to be manufactured. It was pieced together by the few members of the then newly organized Evinrude Motor Co. in a little out-of-the-way blacksmith shop in Milwaukee, back in 1910.

In entering the contest, Mr. Craig wrote: "I do not care to ship this motor unless I have a chance to win the prize (a new 1925 Champion Sport Twin), as there is nothing the matter with it. It does not need any repairs, as I have it in use every week-end—and it runs fine."

It is a long stride from this rather crude piece of machinery to the trim new 1925 Champion Evinrude Sport Twin which is a true masterpiece in performance and engineering design. Ever since old No. 12 was built, each year has seen new and greater improvements. New devices which added more pleasure and safety to the sport of outboard motoring. A flywheel magneto was developed which rid the boatman of the old bother of lugging around a heavy battery that only too often went dead far from home. Then came the Sport Twin, to which a tilt-up was added to prevent injury to the motor. Whenever hidden logs, snags or shallows are encountered, all under-water Sport Twin parts automatically tilt over the obstruction—snubbing the shock, preventing damage to the boat, propeller and motor. The tilt-up lock was added for convenience in starting and is an exclusive Evinrude feature. This is an instant tiller setting which holds the motor rigid for starting. There is no wobbling or sideway. The Evinrude automatic, instantaneous reverse is tiller-controlled—merely a lift of the tiller sends the boat full speed astern. If one is in danger of hitting the pier or another boat this device comes in mighty handy because you do not take your eyes from the course ahead or move the motor a fraction of an inch. It also eliminates the old-fashioned idea of stopping the motor and reanking in reverse.

Each year has seen new improvements in the Evinrude flywheel magneto. It has been developed to a stage where it now provides hot sparks eight times the usual spark gap requirement. This magneto is entirely weather and waterproof. Anyone preferring timer-and-battery ignition can have the Evinrude Sport Twin thus equipped—with genuine Columbia Hot Shot batteries and at a lower price than for the famous flywheel magneto-equipped model, however.

Another development was the Power-Focus drive to conserve every possible ounce of the motor's eager power and focus it at the propeller blades, where it really counts. From crankshaft to propeller, ball bearings and matched, precision-cut gears are used in power transmission. The Evinrude is the only outboard so equipped.

Then the No-Clog pump eliminated another disadvantage. This new pump provides an absolute force feed of water to the cylinder jackets whether going forward, reverse or loafing at a slow trolling speed. Its location up out of the way of mud and sand eliminates any possibility of the pipes and water jacket being clogged.

(Continued on page 138)

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Is your boat equipped with—

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If NO is your answer, let us tell you how little it costs to equip your boat with the ERICO accessories you need. ERICO accessories are unique in design and are manufactured of the highest grade materials. They add greatly to the appearance and efficiency of any craft.

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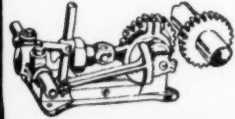
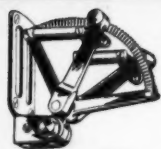
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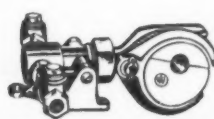
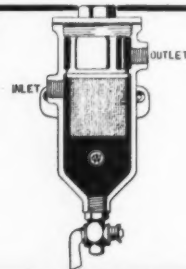


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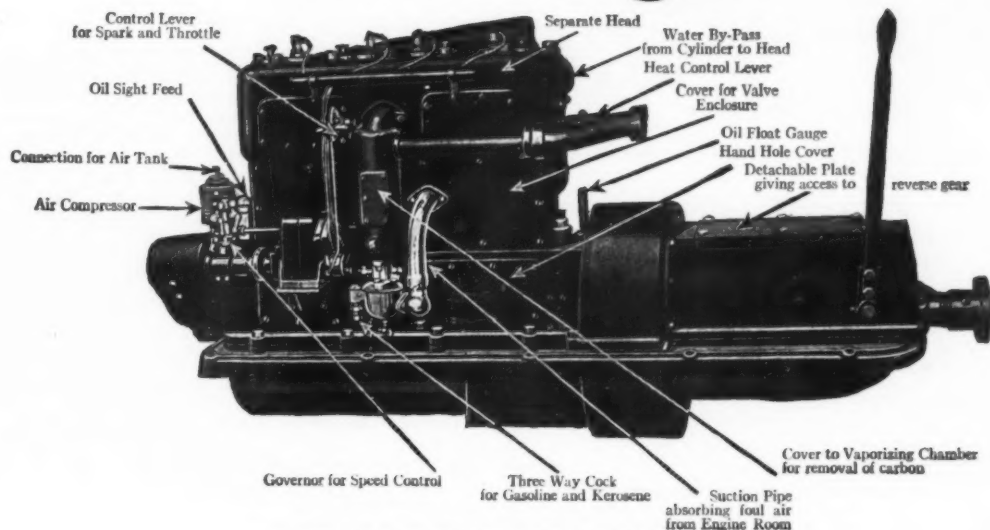
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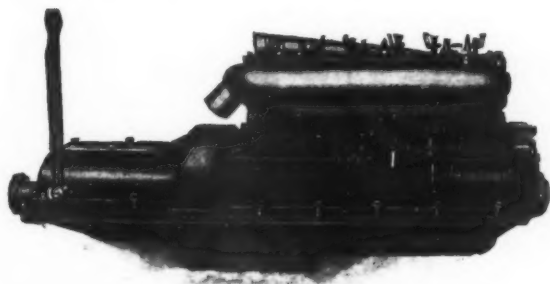
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F-1, 4 H. P.,  $4\frac{1}{2}$ " x 5", weight 410 lbs.  
I-1, 6 H. P.,  $5\frac{1}{4}$ " x 6", weight 500 lbs.

#### Two Cylinder Models, Medium Duty

F-2, 10 H. P.,  $4\frac{1}{2}$ " x 6", weight 625 lbs.  
I-2, 14 H. P.,  $5\frac{1}{4}$ " x  $6\frac{1}{2}$ ", weight 800 lbs.

#### Four Cylinder Models, Medium Duty

D-4, 6-14 H. P.,  $2\frac{1}{2}$ " x 4", weight 250 lbs.  
E-4, 12-20 H. P.,  $3\frac{1}{2}$ " x 5", weight 700 lbs.  
F-4, 18-24 H. P.,  $4\frac{1}{2}$ " x 6", weight 1,300 lbs.  
I-4, 24-30 H. P.,  $5\frac{1}{4}$ " x 6", weight 1,600 lbs.

#### Four Cylinder Models, Heavy Duty

R-4, 28-35 H. P.,  $5\frac{1}{4}$ " x  $7\frac{1}{2}$ ", weight 2,000 lbs.  
S-4, 40-50 H. P., 6" x 9", weight 2,800 lbs.

#### Six Cylinder Model

E-6, 25-35 H. P.,  $3\frac{1}{2}$ " x 5", weight 850 lbs.

Miller Kerosene Attachment at slight extra charge.

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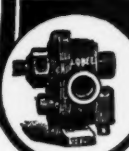
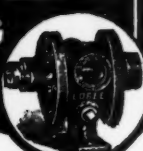
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110 Volt Arc or Incandescent Searchlights.

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261 East Clifton Avenue Cincinnati, Ohio

## Among the Glaciers of Alaska

(Continued from page 132)

side of the wave. A few lesser waves, and it's all over—all but the noise out in the inlet made by hundreds of icebergs, disturbed by the swells, grinding and crashing together. Add to this—these original masses of whitish-emerald green, and Prussian blue, icebergs and ice walls; dab them with every color of the rainbow in the setting sun; and you've got a picture that lingers in one's memory like some fantastical nightmare.

(To be continued)

## Yard and Shop

(Continued from page 66)

### The New Stearns Six

Some tests recently made of the new six cylinder Stearns marine engine have more than fulfilled the expectations of the designers. The results produced were such as were not previously considered possible with the type of cylinder heads used, which were specially designed for this machine. The Link-Belt chain which is used to drive the camshaft has an automatic take-up, and is so large in proportion to the work it must do that it will be guaranteed for the life of the engine, without any attention or adjustment whatever. It is expected that this drive is sufficiently durable to outlive two or three engines. Due to the tremendous excess strength of the chain, the automatic tension spring will hardly ever be called into play, and very little wear will take place.

After the preliminary running in of the new machine, a short endurance run of one hundred hours at full throttle and full load was conducted, and the engine ran without and interruptions, and all parts seem to be in perfect condition when examined. The operation of the machine is very smooth, with practically no vibration. In fact when pulling a full load with wide open throttle, a coin can be balanced on its edge on the top of the cylinder head without falling over. Photographs of this machine will shortly be available, and it will then be illustrated and described more fully.

## An Improved Service Policy

Coincidentally with the retirement of M. C. Kimball from the firm of Bruns Kimball & Co. are announced some very important changes in the policy of this the outstanding company among the marine engine dealers in the country.

The oldest and today the largest dealers in marine engines, Bruns Kimball & Co. dates its inception to the shop of Wm. Bruns in Jersey City, N. J., twenty-five years ago.

It can be said truthfully that in every step forward toward the betterment of service, broadening of policy, protection of customers, etc., taken by the industry, this firm has been one of the leaders. Now comes an announcement of even more liberal policy, of even more generous treatment of customers, of even more open and above-board methods of trading, so that there can possibly be no other result than a customer 100 per cent satisfied.

Wm. Bruns, perhaps the best informed executive in the rebuilding industry, remains president of the company and continues, as he has in the past, to act in an advisory capacity to the hundreds of boatmen who come to him with their problems to solve. He has instituted a new house slogan, which will give an idea of the new attitude. It is Harmony and Service and every employee and officer of the company is on the jump to live up to it.

J. S. Lobenthal, former general manager and a member of the concern for a number of years, continues in that post in the New York headquarters.

Frank E. Couch, manager of the Philadelphia branch, continues in that position, and also becomes a stockholder and member of the firm, which means that boatmen in the Philadelphia territory, comprising Pennsylvania, South Jersey, Delaware, etc., will have the advantage of dealing with an executive of the company and a man ready and willing at all times to give his personal attention to all matters, large or small.

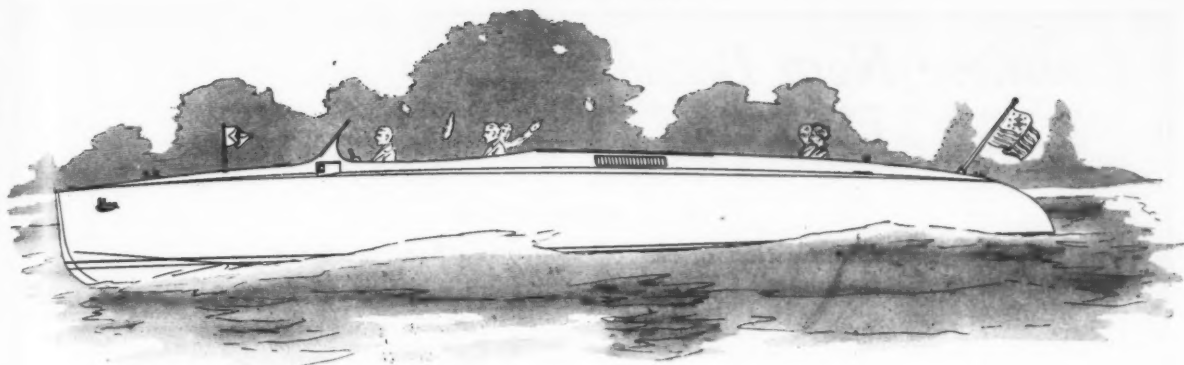
The Philadelphia branch, located at 102 South Fourth St., carries sample engines of the makes distributed, and a cordial invitation is extended to call there, inspect the line, and become acquainted with the genial Mr. Couch.

## Harrison Joins Evinrude

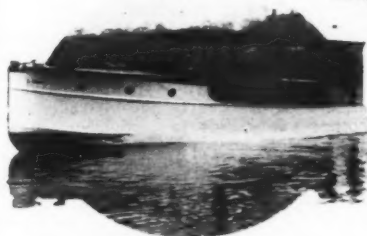
Leonard Harrison, who formerly represented the Canadian Canoe Company in Eastern Canada, has joined the sales force of the Evinrude Motor Company and will extol the virtues of the new 1925 Champion Evinrude Sport Twin throughout the Eastern States.

He possesses a most likable personality, which will make many friends for the Evinrude.

(Continued on page 158)



## Albany BOATS



C-40—Developed from scores of successful Albany cruisers, the C-40 gives a choice of several interior arrangements. In this one, the forward cabin, sleeps four, with bridge amidships and large deck aft. For larger accommodations an after cabin can be added.

C-52—A 52' x 12' express cruiser, with accommodations for eight people and crew of two, or which can be varied in arrangement, power and speed to meet your requirements.

R-26—An eight-passenger runabout, 26' x 6', that meets a large demand for a medium size runabout of the highest quality.

**T**HE new Albany Model R-34, pictured above, is the latest development in fast runabouts. It is a beautiful boat, mahogany planked, copper and brass fastened and double planked bottom. Dimensions are 34' x 7' x 28". with seating capacity for eleven passengers, on deep spring upholstery, tailored for salt-water service.

The construction follows the highest standards of the boat builders' art while the design is a bit in advance of anything in the water today. The underbody is the standard Albany "V" bottom with broad, flat sections aft; the sides are gracefully molded to blend with the streamlined upper works and new Albany streamline stern.

While beautifying the "V" bottom type, we hold fast to our knowledge of practical salt-water requirements. For example, no aluminum or nickel plating is used, but deck fittings are genuine A B C metal. Albany safety features are built in. The power installation is a story in itself of new achievements. Most completely equipped.

Engine is Sterling Dolphin Six Special, for speed of over forty miles per hour—a proven marine motor good in salt or fresh water—a smooth balanced six. Other possibilities are fifty-five miles with Wright Typhoon, or fifty miles with Liberty Twelve.

These are just a few of the Albany standardized types. If the boat you are interested in is not included we will be glad to prepare special designs or build from your architect's plans.

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# Another New Book

# Where To Cruise

By F. W. Horenburger, C. E.

*2nd Edition of MoToR BoatinG's Book of Motor Boatmen's Charts with Valuable Cruising Data*

37 detail charts of the eastern seaboard, sounds, bays and harbors, covering the entire Atlantic coast from Maine to the Gulf of Mexico.

10 detail charts of rivers, inland lakes and canals.  
9 detail charts of the Great Lakes.

56 charts in all, attractively and durably bound in a book measuring  $8\frac{1}{2} \times 11\frac{1}{2}$  inches.

Chart No. 1—Western End of Long Island Sound  
Chart No. 2—Eastern End of Long Island Sound  
Chart No. 3—Block Island Sound  
Chart No. 4—New York Harbor  
Chart No. 5—Boston Harbor  
Chart No. 6—Buzzards Bay  
Chart No. 7—Block Island to Vineyard Sound and Narragansett Bay  
Chart No. 8—Delaware River and Bay  
Chart No. 9—Chesapeake Bay—Part 1  
Chart No. 10—Maine Coast  
Chart No. 11—Hudson River, Kingston to Albany  
Chart No. 12—Chesapeake Bay—Part 2  
Chart No. 13—Lake Erie, Eastern End—Part 1  
Chart No. 14—Lake Erie, Western End—Part 2  
Chart No. 15—Hudson River, New York to Kingston  
Chart No. 16—Lake Champlain, Whitehall to Rouses Point  
Chart No. 17—The New York State Barge Canal System  
Chart No. 18—Massachusetts Coast, Scituate to Newburyport  
Chart No. 19—Massachusetts Coast, Newburyport to Cape Elizabeth  
Chart No. 20—Cape Cod Bay, Massachusetts  
Chart No. 21—Coast of Maine, Monehegan to Isle Au Haut  
Chart No. 22—Chesapeake Bay, Cove Point to Smith Point—Part 3  
Chart No. 23—Biscayne Bay, Florida  
Chart No. 24—Thousand Islands, Wolfe to Grenadier Island  
Chart No. 25—Delaware River, Trenton to Philadelphia  
Chart No. 26—Delaware River Philadelphia to Smyrna  
Chart No. 27—New Jersey Coast, Cape May to Little Egg Inlet  
Chart No. 28—New Jersey Coast, Little Egg Inlet to Bayhead  
Chart No. 29—New Jersey Coast, Bayhead to New York Harbor  
Chart No. 30—Chesapeake Bay, Smith Point to Cape Charles  
Chart No. 31—Potomac River, Entrance to Lower Cedar Point  
Chart No. 32—York and James Rivers  
Chart No. 33—Delaware Coast, Cape Henlopen to Chincoteague Inlet  
Chart No. 34—Virginia Coast, Chincoteague Inlet to Cape Charles  
Chart No. 35—Virginia Coast, Cape Henry to Albemarle Sound  
Chart No. 36—Albemarle Sound, North Carolina  
Chart No. 37—Pamlico Sound, North Carolina  
Chart No. 38—North Carolina Coast, Core Sound to New River Inlet  
Chart No. 39—Carolina Coast, From Cape Fear to Winyah Bay  
Chart No. 40—South Carolina Coast—From Winyah Bay to St. Helena Sound

Chart No. 41—Georgia Coast—From St. Helena to Doboy Sound  
Chart No. 42—Lake Michigan, Southern Part  
Chart No. 43—Lake Michigan, Northern Part  
Chart No. 44—Lakes Michigan and Huron  
Chart No. 45—Lake Huron  
Chart No. 46—Coast of Georgia  
Chart No. 47—Florida Coast  
Chart No. 48—Florida—Cape Canaveral to Miami  
Chart No. 49—Lake Ontario—Western Part  
Chart No. 50—Lake Ontario—Eastern Part  
Chart No. 51—Nantucket Sound  
Chart No. 52—Long Island Sound, Oyster and Huntington Bays  
Chart No. 53—New York to Boston  
Chart No. 54—Boston to Eastport  
Chart No. 55—Trent Waterway, Ontario  
Chart No. 56—Connecticut River

THE most suitable courses from all principal ports and harbors are given on these charts, as well as magnetic courses and bearings, distances in statute miles, all principal lights, buoys, etc. All charts are drawn to scale. They have proven invaluable to motor boatmen while cruising or planning a cruise.

Much other cruising data is given in the book, such as where to purchase the various government charts and publications, notes on how to use charts, the characteristics of lights and other major aids to navigation, information as to fuel and supply stations, etc.

A number of suggestions for interesting cruises and several complete cruises are outlined as follows:

Cruise No. 1—New York to Albany  
Cruise No. 2—Albany to Buffalo  
Cruise No. 3—Albany to Thousand Islands via Champlain Canal, Lake Champlain, Montreal and St. Lawrence  
Cruise No. 4—New York to Thousand Islands via Barge Canal  
Cruise No. 5—New York to Philadelphia  
Cruise No. 6—Buffalo to Detroit  
Cruise No. 7—New York to Florida  
Cruise No. 8—Miami, Florida, to New Orleans  
Cruise No. 9—New York to Boston  
Cruise No. 9A—New York to Boston  
Cruise No. 10—Boston to Eastport, Maine  
Cruise No. 11—Trent alley Waterway  
Cruise No. 12—Connecticut River

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*A wonderful illustrated course in Piloting, Seamanship and Small boat handling, published in complete book form and profusely illustrated with nearly 300 cuts and diagrams*

INSTEAD of page after page of dry text matter with only occasional illustrations, this text book of small boat seamanship is composed mainly of pictures, drawings, photographs, charts and diagrams covering every situation and every point, with the purpose of each picture clearly explained by a concise and simple title.

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You will find it easy to read and easy to remember because each chapter is reviewed by pertinent questions which reveal your understanding of the lessons.

The preparation of this Course has cost thousands of dollars. These books would easily cost \$10.00 each if the work was undertaken for book purposes alone. However, all the material and illustrations were originally prepared for the famous Correspondence Course which appeared in regular issues of MoToR BoatinG. And now you can have this entire Course in permanent form for only \$2.00.

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To really get the most out of motor boating we believe you will find Kermath the ideal marine motor from any point of view.

Most experienced boat builders do. 80% of the leading boat makers now standardize on the Kermath exclusively. This means a lot and should be a good guide to you if you are uncertain.

Kermath is the world's standard motor for any size boat because of its rugged construction—simple design—all around up-to-dateness.

Kermath is an advanced motor—reliable—economical—perfectly balanced—accessible—easy to handle and needs no attention.

Season in and season out, thousands of Kermath owners find this sturdy motor working like a beaver—always dependable.

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3-4 H.P., \$135. 100 H.P., 6 cylinder, \$1450.

*"A Kermath Always Runs"*

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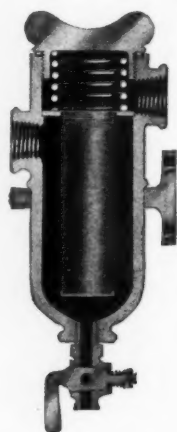
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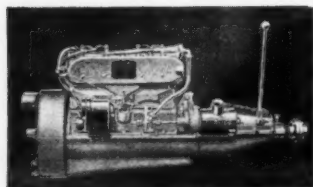
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from 1—50 H. P.

Write Department  
25 for our  
Catalog.

THE CARLYLE JOHNSON MACHINE CO. MANCHESTER CONN.

## Analysis of the Carbon Problem

(Continued from page 40)

whether or not everything is as it was described by the owners. For my own information, I investigated several of these cases some months ago, and developed the following facts, which should be of inestimable value to those who have been troubled with excessive carbon formation.

First: carbon is the partially burnt residue (or heavier portion) of our fuel or lubricant, which remains in the combustion chamber after each explosion. These deposits gradually accumulate as time goes on, with the consequence that the more carbon present, the faster new carbon deposits form. This is due to the fact that the old carbon deposits make an ideal surface for the new carbon to adhere to. In fact most of you have already noticed that carbon first forms on any rough spots or projections in the combustion chamber. Summing it up, carbon is the remaining portion of incomplete combustion which lodges on any place where it can adhere. Incomplete combustion may be due to any of the following faults:

#### 1—Compression

(a) Poor, due to leaks past rings, piston scored or worn cylinders, defective gaskets, worn cams, or defective valves.

(b) Too low, due to improper design, leaks as described in (a) poor valve timing, too small clearance in valve tappets, worn cams, too small intake manifold or carburetor, or gaskets obstructing some of the intake passages.

(c) Too high, due to improper design, engine loaded too heavily, or poor valve timing.

(d) Varies in different cylinders, due to any of the above faults, one cylinder larger than another, or some of the valves sticking in the guides or by weak springs.

#### 2—Ignition

(a) Improper timing, due to incorrect setting, slipping gears, broken gear teeth, using separate coil for each cylinder which gives sparks of different intensity to cylinders, worn contacts in timer or distributor, sticking contact points, or bent control rods.

(b) Weak spark, due to run down battery, defective or improperly adjusted spark plugs, worn or defective distributors, and timers, or defective or improper wiring.

(c) Varying spark, due to wet wires, wires shaking and touching hot portions of motor from vibration thus causing insulation to fail and a short circuit to occur or leading high and low tension wires through a tube, pipe or hose setting up electrical induction.

#### 3—Valve action

(a) Improper timing, due to incorrect setting, slipping gears, broken gear teeth, keys or pins sheared, worn cams, or too much or too little clearance between valve stems and tappets.

(b) Irregular action, due to cams set on camshaft out of sequence, bent or twisted camshaft, more wear on one cam than another, more clearance between one valve stem and tappet than another, sticking valve stems, or weak or broken valve springs.

(c) Leaky, due to excessive clearance between valve stems and guides, too little clearance between valve stems and tappets, bent stems, sticking in guides, burnt or broken valve heads and seats, warped valve heads from excessive heat, or weak springs.

#### 4—Carburetion

(a) Too rich mixture, due to setting carburetor while motor is cold, necessary owing to too high compression or overloaded motor, flooding carburetor, running with throttle closed, sticking air valve in carburetor or condensed gasoline puddling in low spots.

(b) Irregular mixture, due to worn or poorly fitting carburetor parts, sticking air valve or float valve, water logged float, air leaks into carburetor or intake manifold, leaky intake valve stems, puddles of gasoline forming in low spots, between carburetor and combustion chamber generally traceable to improperly designed intake manifolds or pockets under intake valves, or water and dirt in carburetor bowl or in pipe line from tank.

(c) Poor grade of gasoline, due to evaporation or purchase of cheap fuel.

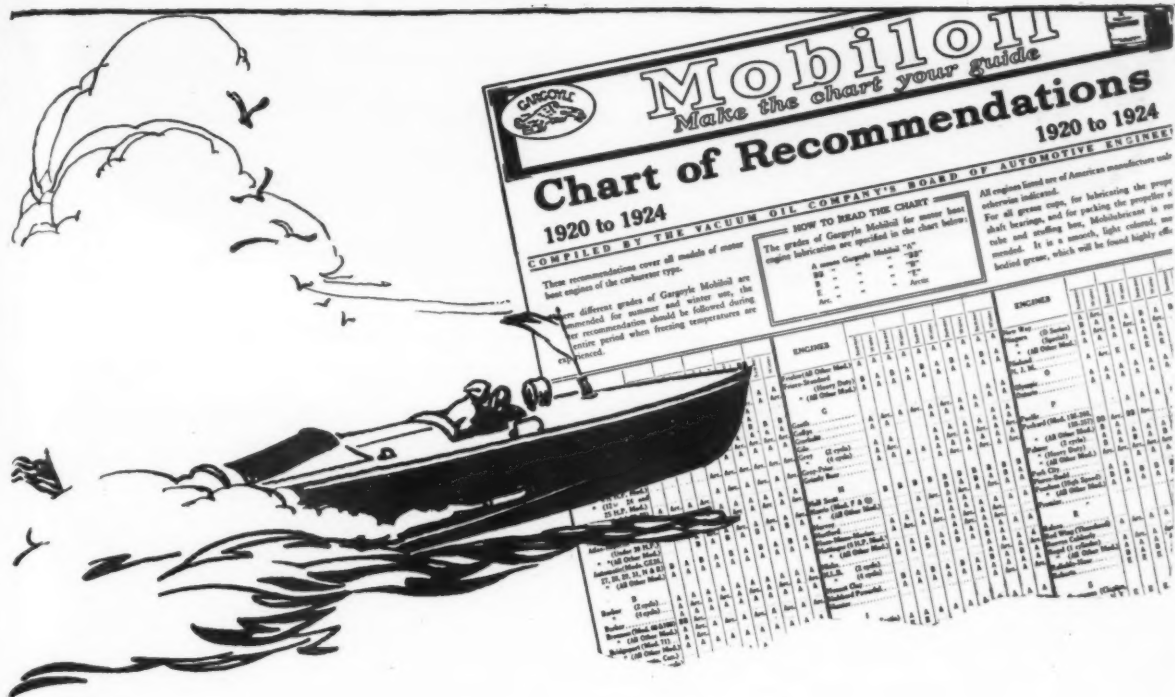
#### 5—Lubrication

(a) Excessive amount, due to improper setting of feeds or pressure, too high an oil level in base or sump, leaking past pistons and rings caused by scored or worn parts, oil feeds too high on cylinder walls (where piped with individual leads to each cylinder), caused by bearing wear or improperly placed leads through cylinders.

(b) Wrong grades or poor quality of oil, due to being too light or too heavy for the needs of your motors, too low a flash point for motors running hot, poor viscosity and breaks down under heat, made from wrong base crude oil which contains a large percentage of free carbon, similar to tar deposits, or use of cheap oil to save money.

(Continued on page 146)





## 38 lubrication engineers have studied your engine

FOR 14 days in December last, 38 Lubrication Engineers sat around a table and analyzed and discussed the new models of every known motor boat engine. Every year this analysis is made.

The studies include engine design, compression pressures, clearances, piston type, location and design of piston rings, return grooves and drain holes; the method of supplying oil to each bearing, size and length of oil lines, type and location of oil pump, size and mesh of oil screen, capacity of oil reservoir, means of regulating the oil pressure. These and a host of other points that have even the slightest bearing on lubrication are carefully studied.

Following these studies, lubrication recommendations are made and checked for correctness by conferences with the makers of the various types of marine engines. Nothing is left to chance, nothing to guesswork.

The lubrication recommendations take practical form in the Vacuum Oil Chart of Recommendations for Motor Boats. This Chart tells you the scientifically correct grade of Gargoyle Mobiloil to use.

Gargoyle Mobiloil—and Gargoyle Marine Oils—are recognized as correct motor boat engine lubrication because these oils—

- are produced by the leading lubrication specialists of the world,
- are NOT by-products,
- contain highest lubricating qualities,
- come in the correct grades for all types of Motor Boat engines,
- prove their efficiency in actual service.

Write for our Booklet, "Correct Lubrication for Motor Boat Engines." It tells what correct lubrication means, the correct oil for your engine; how to get best results; how to overcome engine troubles. A copy of this Booklet will be sent you free. In writing, kindly address Department B, Vacuum Oil Company, 61 Broadway, New York City.

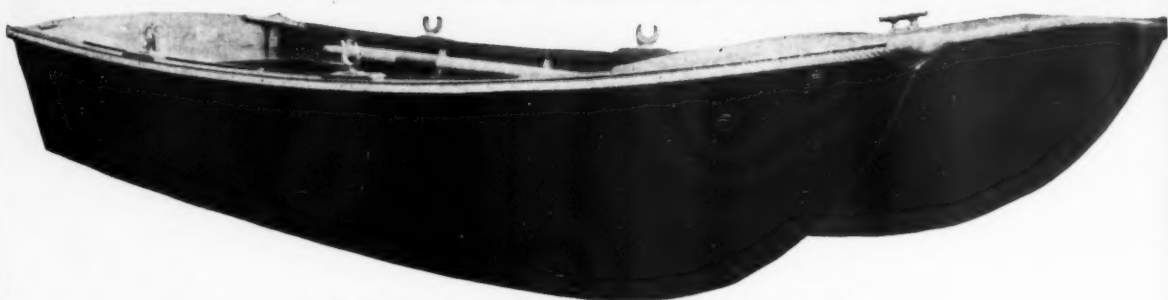


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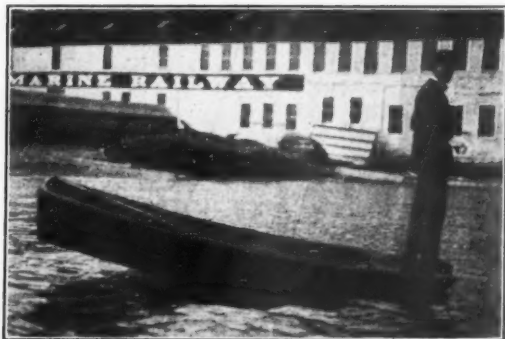
## THE SEA SLED DINGHY

Here is a boat whose many advantages make an instant appeal to all discriminating boatmen. Non-capsizable, commodious, dry, seaworthy as a conventional type boat 20 feet long. Ideal for hunters and fishermen. For family use.....ABSOLUTELY SAFE

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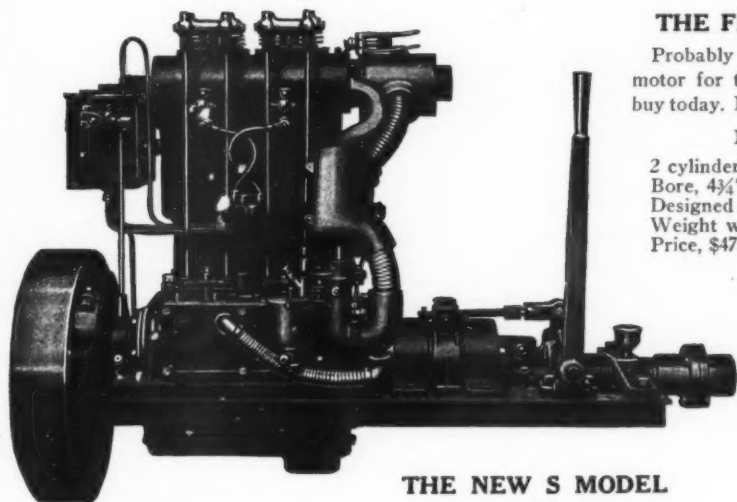


180 pounds at extreme bow. Wonderful stability with passenger on gunwale

*Advertising Index will be found on page 166*

# FRISBIE

## Valve-in-Head Motors

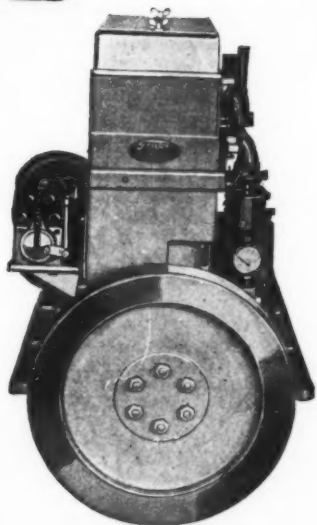


### THE FRISBIE SPECIAL

Probably the most real marine motor for the money that you can buy today. Ideal for small auxiliaries.

#### MODEL FB2

2 cylinders, 10-14 H.P.  
Bore,  $4\frac{3}{4}$ " ; stroke, 5"  
Designed speed, 600-700 R.P.M.  
Weight with gear, 525 lbs.  
Price, \$475 complete, as shown.



FORWARD END

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Built for Everybody's Motor Boat and just the thing for the popular auxiliary schooners of today.

18-25 H.P.; 600-900 R.P.M.

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For Runabouts and small fast cruisers.

28-40 H.P.; 1000-1500 R.P.M.

Bore, 4" ; stroke, 5"

Displacement, 251 cu. in.

Weight, 600 lbs.

#### MODEL FF4

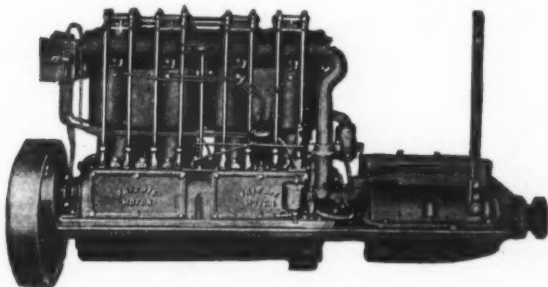
A powerful, reliable power plant for the larger boats.

4 cylinder, 42-60 H.P.

Designed speed, 600-900 R.P.M.

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Weight with gear, 1400 lbs.



Frisbie Valve-in-Head Motors are powerful, yet economical; faithful without having to be fussed over, and good for many years of trouble free service.

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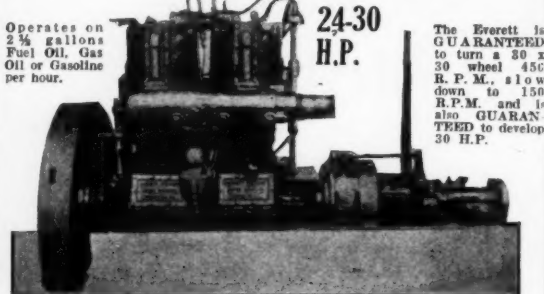
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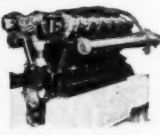
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## Analysis of the Carbon Problem

(Continued from page 142)

(c) Poor lubrication, due to wrong setting of feeds or pressure, stopped up leads, low level in base or sump, no oil or not enough, oil too heavy so it does not flow properly in motors where parts are a neat fit or where motors run cool, cylinder leads placed too low on cylinders and the rings as well as upper parts of pistons run dry, or dirty or diluted oil circulating. (Poor lubrication causes a motor to run very hot crystallizing or burning carbon deposits to the piston or upper parts of cylinders and heads, which would otherwise be blown out through exhaust.)

### 6—Improper use of motor

(a) Overloaded, due to misalignment, too large a propeller, bearings and stuffing boxes set up too tight, boat too heavy for motor, using heavy boats for work powered with light motors, and fitted with too large a wheel, such as in towing or carrying larger loads.

(b) Excessive throttling, over rich mixtures fed for long periods, due to running under low throttle, particularly in boats which are over powered, operating under adverse traffic conditions, navigating around wharves and bridges, etc., or in cases where boats are left tied up with the motor idling unnecessarily for long periods.

### 7—Water cooling

(a) Running motor too cool, due to too large an amount of water fed to the jackets which necessitates the use of a larger percentage of gasoline to aid in the mixture.

(b) Running too hot due to pump or piping being too small, worn or clogged, stopped up water strainer on out side of hull, traps in water line causing steam pockets and hot spots to occur in the jackets, rubber lining on inside of hose acting as a check valve (running the motor under retarded spark for long periods, and causing consequent overheating, is often times improperly blamed on poor water cooling.)

(c) Running first hot then cool, due to traps in line, dirt in piping, partially stopped up strainer on outside of hull, collapsed rubber hose, or where inside of hose comes loose and acts as a check valve, improper piping to various cylinders so that each does not get the proper amount of water, or where the overflow is piped out of jackets at some other than the highest point (erratic cooling causes the motor to first require a lean, then a rich mixture, with the result that for a portion of its operating hours it is getting an improper gasoline mixture.)

Practically no motor will have all these faults, however, many may have one or more of them, and faults such as these are certain to either increase or make a nuisance of your carbon deposits. Also, there is no motor known which has been entirely free of it, providing it has been operated under average conditions. Furthermore, there are no kinks, appliances, or compounds which can be bought and used to eliminate carbons. If there was the motor manufacturers would have adopted them long ago. The point I am trying to bring out is this, if your motor is of correct design, is in good shape mechanically, has been properly installed, is of the correct type for your craft, and the use to which needed, and is intelligently operated, then carbon deposits will not be one of your worries. However, when you find that carbon is becoming noticeable, check this chart of troubles against your motor installation item by item, and remedy the faults found by either repair, replacement, adjustment, or by the proper use and intelligent operation along with proper fuel, lubricants and cooling.

As much of this may not be readily understandable to those of you who are unfamiliar with motors and their design, a little explanation as to how and why will certainly help.

Compression in the ordinary gasoline or internal combustion motor is the number of pounds of compression, the mixture of gasoline and air is subjected to when the piston is at the top of its firing stroke. By turning the flywheel over in the proper direction of its rotation, it becomes harder to turn it as the piston nears the top of its stroke on the firing cycle just as if you were compressing a heavy coil spring placed in the combustion chamber between the top of the piston and the under side of the cylinder head. Theoretically, the higher the compression, the more power and economy the power plant will have. However, in certain classes of motors, this compression ratio, or number of pounds pressure per square inch of combustion chamber space, has to be reduced to a comparatively low figure. This is due to this class of motor working at low speeds carrying heavy loads. In others, such as the high speed motors, compression ratios are high, as the rotative speeds are in the neighborhood of 1,200 to 1,800 revolutions per minute, and the loads are lighter. In such motors compression can be as high as 90 pounds per square inch, and still operate without causing pre-ignition. If your motor is of an up-to-date design and manufactured by a reputable concern, you can depend upon it

(Continued on page 150)

J.E.B.

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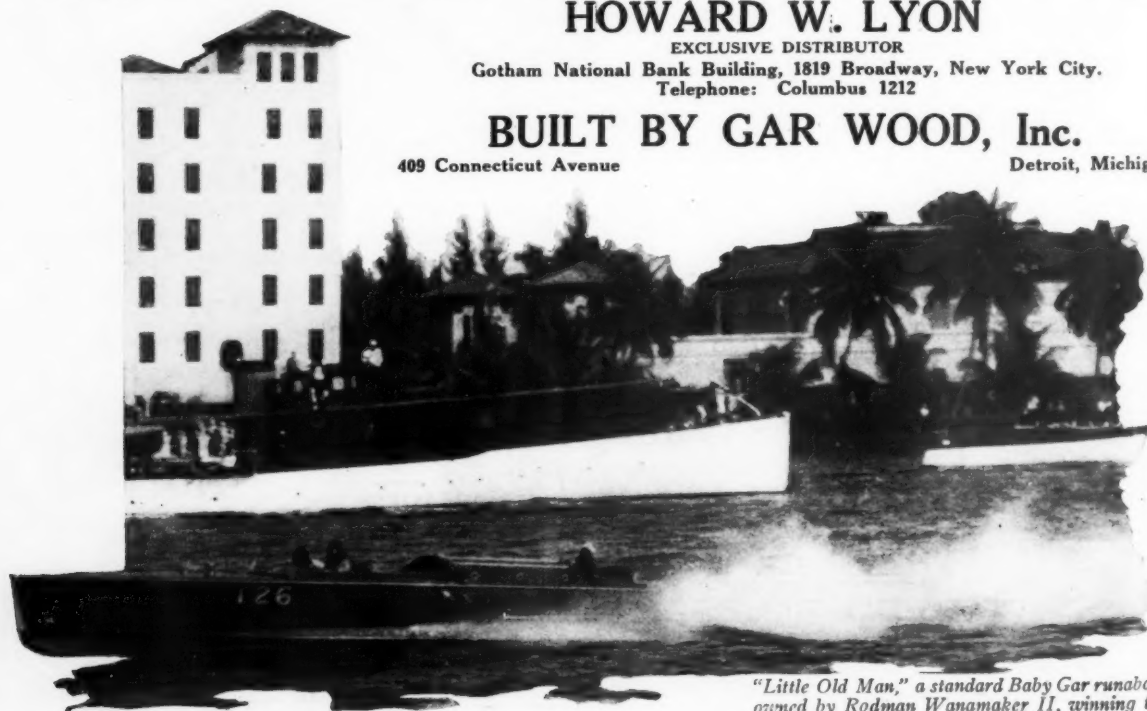
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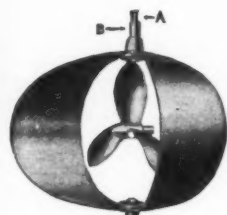
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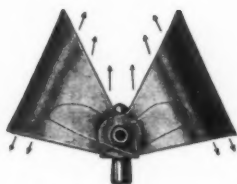
"Little Old Man," a standard Baby Gar runabout owned by Rodman Wanamaker II, winning the Bradley Gold Cup at Palm Beach, February, 1925.



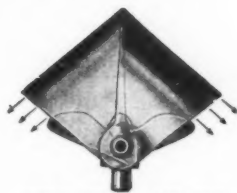
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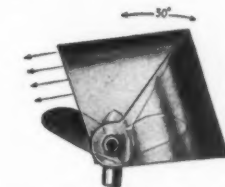
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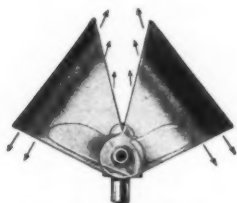
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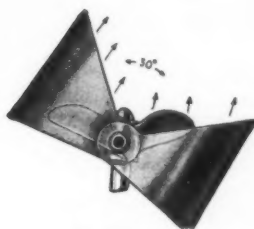
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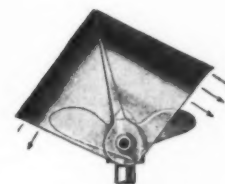
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## Analysis of the Carbon Problem

(Continued from page 146)

that the designer has given your motor its correct compression ratio for the work it is supposed to do. Compression in each cylinder is the same when the motor leaves the factory; yet where it takes place as the motor is operated, more so on one cylinder than in another, and the consequence is that after two or three years' operation the compression may vary considerably in the different cylinders. It stands to reason that a motor in this shape will not function properly. It is impossible to get the same amount of mixture into the weak cylinders, as their suction or vacuum is faulty, and further decreases the compression in those cylinders. To take care of them a richer mixture must be used, and as a consequence the stronger cylinders are running choked up with too much gasoline. Operating under this condition soon causes the stronger cylinders to collect carbon, and in lots of cases operators will blame them as being defective. If you were trying to operate a four cylinder motor, equipped with carburetor for each cylinder, with each carburetor set to give a different mixture, you would hardly expect to get good results; yet there are thousands of operators who are blaming their motors for giving trouble when these motors are really working under the same identical circumstances. Where only the rings are worn, these can be replaced with ones a few thousandths of an inch oversize. Valves can be reground or replaced. Scored or worn cylinders or pistons call for regrinding or reboring with fitting of new pistons and rings of the correct size. Defective gaskets should be renewed, and the metal surfaces to which fitted trued up of any bumps or hollows. Worn cams for the intake valves can also cause a lowering of the compression, as they do not open the valve sufficiently to allow the full charge to enter, and a renewal of these on an entire camshaft is necessary. In some of the older motors this compression ratio was very high, even in the lower speed types, due to the fact that gasoline sold then was distilled until it was high test fuel and the heavier portions taken from it. As it is possible to carry a higher compression on this kind of gasoline, these motors were satisfactory then. However, in trying to use them with the present day fuels of low specific gravity considerable trouble is experienced. Pre-ignition or fuel knock, caused by this high compression igniting the fuel before the pistons are at the top of their stroke, make it necessary for the operators to run under reduced throttle with a rich mixture. Then the carbon troubles start in earnest, as the carbon knock manifests itself just as soon as a little carbon forms. This condition, however, can be very easily and economically remedied by fitting a thick fibre or metal gasket between the cylinder flanges and the upper base. In motors where the cylinders and upper base are in one casting, two gaskets in place of one, or a thick gasket of the copper and asbestos type can be fitted under the cylinder head. These gaskets will vary in thickness from one-eighth to one-half, depending on the motor. However, it will be up to you to experiment until the correct thickness is found.

The ignition system is a very important unit in the power plant installation, as on it depends the proper firing and consuming of the compressed fuel charge in the cylinders. Unless the charge is fired at the correct time, and as completely as practical, the remaining portions of the unburnt charge will remain to foul the fresh ones coming in on the next firing cycle, and these unburnt charges are the basis for carbon deposits. The firing sequence should be uniform in all cylinders, and each spark should be hot enough to instantly fire each charge. Timing the spark too late, and running under this condition, seriously overheats the engine and burns those powdery or flakey carbon deposits to the exposed metal surfaces in the combustion chamber, which would otherwise be blown out through the exhaust valves. Also, with a late spark, rich mixtures are necessary.

Proper timing and functioning of the intake and exhaust valves, determines the power output and the fuel consumption, as they admit the fuel charge and allow the escape of the burnt and expanded gases. It can be readily seen that any engine whose exhaust valves open so as to retain a portion of old burnt charge in the cylinder are certain to have excessive carbon. In most engines the gears are punch marked so they can easily be meshed to obtain the proper valve timing, and only in rare cases can this timing be improved. Leaky valves are certain to cause weak compression, dilution of the fuel charge and general power losses along with carbon and other ills.

Carburetion is the chief offender in forming carbon, and much of it is due to poor adjusting and improper operation. The agent or manufacturer who sells you an engine, and tells you not to bother the carburetor setting, is laying the foundation for unsatisfied customers, because there is no carburetor made which will automatically adjust itself to allow for hot, cold, dry, or wet weather. You have probably noticed that on damp days

(Continued on page 152)



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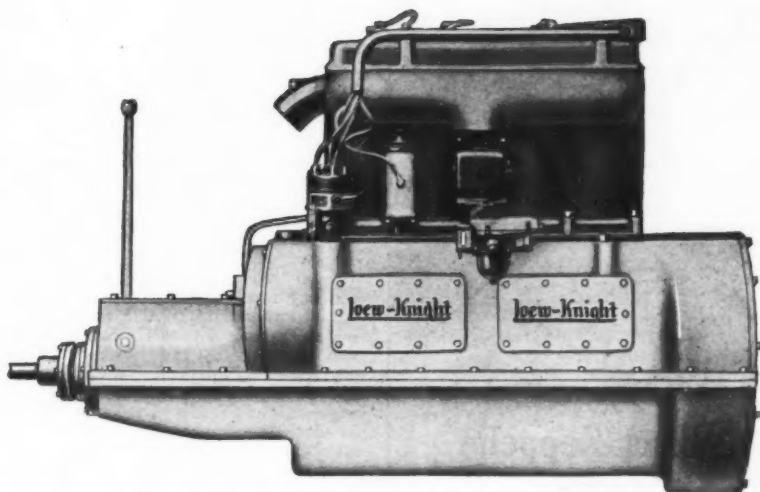
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## Analysis of the Carbon Problem

(Continued from page 150)

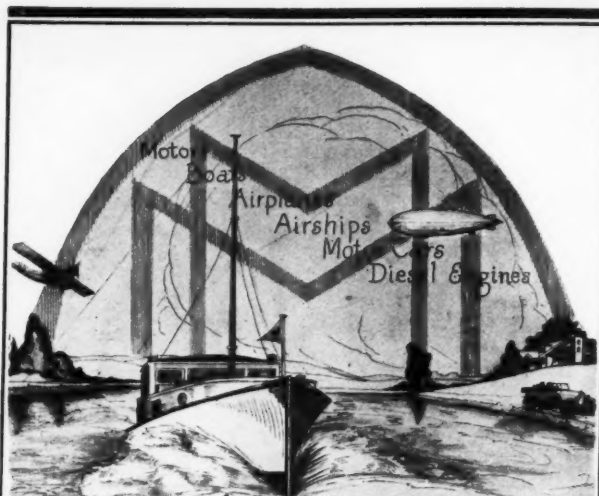
in the summer you get better results with a lean mixture, while on cold dry days more gasoline must be given to the mixture. If you are interested enough to adjust your carburetor for weather changes and after the motor has warmed up, you will add immensely to your mileage per gallon, and carbon will not trouble you in the least. Always strive to use the maximum amount of air and the minimum of gasoline. Most carburetors today have adjustments for both idling and full power running, and these two settings should be made after the motor is warmed up. Intake manifolds and valve pockets should be designed so as to afford drainage of any condensed fuel back to the carburetor, as low spots will collect puddles of raw gasoline, and foul the mixture. Sharp bends or rough interiors also help to condense the fuel from the mixture as it passes by, and should be eliminated when possible. Air leaks around valve stems or gaskets also cause trouble as they give the mixture too much air. Intake manifolds or carburetors of the incorrect size will give you much trouble, as with this combination it is impossible to adjust the carburetors for the correct mixture. When you find any faults, remedy them at once, even though they haven't caused any serious trouble as yet.

Many people improperly blame all carbon troubles on lubrication, claiming that, as it contains more free carbon or residue than gasoline, it naturally leaves more carbon behind. What they lose sight of is the fact that if the engine is in fair condition with the lubrication system working properly, a very small amount of oil can get into the combustion chamber. The lubricant should be of the proper quality and consistency for your motor; the pressure or feed adjustments be properly made; the leads or pipes should be properly placed, only the correct amount of oil should be kept in the lubricator, base or sump; and that oil should be clean and reasonably fresh, as dirty oil will be sure to leave dirt behind it and carbon if it works up past the pistons. Good quality lubricants are made from the proper base crude oils and what carbon they make is invariably sooty or flakey, which causes it to be blown out with the exhausted gases. One of the first places to look at in order to see if the motor is getting an excessive amount of oil is the valve stems on the exhaust side, as they will be coated with a thick gummy deposit as soon as too much oil works up into the combustion chamber, and often times they start sticking in the guides. Where cylinders, pistons, and rings are either worn or scored, more oil is bound to be pumped up into the combustion chambers, and regrinding with the fitting of new rings and pistons are the only remedy. Oil pipes or leads to the cylinders are sometimes placed too high on the cylinder walls, causing oil to work up past the rings in the suction stroke (particularly in motors with automatic intake valves), and in cases like this it is necessary to place the lead a little lower. The proper place on motors, which are slightly worn, is at a point on the cylinder wall opposite the piston pin at the bottom of the stroke. Motors depending on splash systems are very sensitive to over high oil levels in the base or sump, while those having the pressure systems will find it best to slightly lower the pressure as the motor becomes worn. Splash plates on motors using splash systems are but a sort of baffle plate fastened to the lower part of the cylinder skirt and slotted to allow for rod travel. These are very effective, but in many cases are so much so that the cylinders and pistons do not get sufficient oil for their needs. The best remedy, where motors need splash plates, is to have an individual oil feed from the pump to each cylinder, so that the cylinder lubrication can be adjusted properly even though the splash plates keep oil from splashing up out of the base. Any systems which use the oil over and over should be frequently drained and fresh lubricant put in, so that the body of the oil is always correct.

Improper water circulation can also add to carbon troubles. If the motor is supplied with too much water it is certain to run too cool, and cool motors use more gasoline than those operating at a jacket temperature of about 160 degrees; consequently, the more fuel used, the more carbon deposited where motors run too hot, another condition exists, and that is where the excessive heat retained in the metal walls of the combustion chamber cause whatever carbon present to be burnt on these metal surfaces. This class of flint like carbon stays put until it is removed with a chisel, and is mostly incandescent while the motor is in operation, calling for an over rich mixture, and reduced throttle operation which continues to add more carbon very rapidly. Where the water circulation is faulty, forming hot spots from steam pockets, traps or sediment, these spots will soon collect a good deposit of this hard carbon.

Improper use or operation of any motor ranks second to carburetion in carbon formation, and the fault lies solely with the operator. High speed motors which are excessively idled or run under reduced throttle for long periods of time soon become

(Continued on page 154)



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JACKSONVILLE FLORIDA  
March 11, 1925.

To: Wilbur H. Young,  
522 Fifth Avenue,  
New York City, N. Y.

ALL AGREEMENTS ARE CONTINGENT UPON STORAGE ACCIDENTS OR OTHER DELAYS UNAVOIDABLE OR BEYOND OUR CONTROL.

My dear Mr. Young:

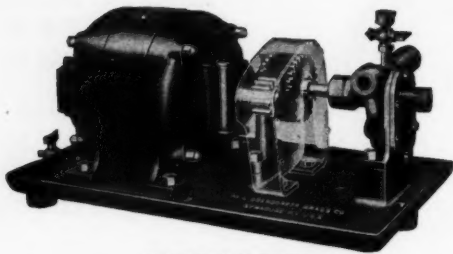
I enclose herewith photograph of the 65' x 19' by 6'-6" Oil Delivery Boat owned by the Standard Oil Company. This boat has a capacity of 11,000 gallons of gasoline and oil.

With the two (2) W.S.M. Motors which we installed she travels at a speed of approximately ten miles per hour loaded. We are particularly pleased with the performance of the engines in this boat. This cargo boat handles with the ease of a runabout, due to the flexibility of the motors and the type of reverse gear that is employed.

I understand from the owners that the boat has been entirely satisfactory.

Yours very truly,  
George S. Gibbs  
GEORGE S. GIBBS.

OWO/o

**"GIANT"**

## EFFICIENT PUMPS FOR HARD SERVICE

**W**HILE fitting out this spring equip your craft with an Oberdorfer Pump. The two gear drive pumps, "Giant" and "Little Giant," are dependable, efficient outfits for bilge pumping and other marine uses such as gasoline tank pumping, deck washing and lavatory supply.

Built of highest grade, non-corrosive bronze. Self-priming. Leak proof. Driven through a fabroid gear and bronze pinion, with aluminum housing covering the moving parts. Mounted on a cast iron base which can be permanently attached or made portable. The "Little Giant" delivers up to 120 gallons per hour. The "Giant," 450 gallons per hour.

*The Oberdorfer "Junior" Direct Drive pump is a smaller outfit, for the movement of liquids in limited quantities. Capacity 76 gallons per hour. Other forms and sizes, including a hand pump, to meet various requirements.*

Write for bulletin "D"

**M. L. OBERDORFER BRASS CO.**  
SYRACUSE, N. Y.

# Oberdorfer Pumps

## Analysis of the Carbon Problem

(Continued from page 152)

thoroughly fouled with carbon, unless the carbureter is adjusted for this speed every time it is done. Running any motor under constant overload calls for rich mixtures and trouble soon starts. Such things as too large a propeller, misalignment, dragging reverse band, bent shafting, too tight bearings or stuffing boxes, and use of small light engines in heavy boats for towing or carrying heavy loads are generally causes for overloading.

Water drip, steam or patented carbon removing and preventative systems are invariable and temporary remedies. If they were half what their manufacturers or boosters claimed for them, the motor manufacturers would adopt them as stock equipment.

Where only a small amount of carbon is present, most of it can be removed by pouring about a half pint of alcohol into a four cylinder engine while it is hot, dividing the quantity equally for each cylinder. As soon as the motor is cold, start it up, run at a good rate of speed and slowly feed about a glass of fresh water through the air intake of the carbureter. After this has been done, run for about five minutes with the pet cocks open, and with an extra supply of oil feeding to the cylinders. This will remove most of the carbon. The only sure way, however, is to remove the heads and scrape it out.

As a sort of after-thought, remember to keep the engine room clean and the air intake of the carbureter screened, as dust and dirt sucked into the engine will gradually stick to any carbon formations in the combustion chamber and accordingly increase their volume.—V. L. S., Wilmington, Del.

## Applying a Canvas Deck

(Continued from page 42)

The usual objection to a canvas-covered deck is the fact that canvas, several years old, is apt to crack, causing a leak and a most untidy appearance. Cracking is caused, first, by an improper bond between the fabric and the wood; second, by the wooden decking being too light so that it gives with the wrenching of the boat and the weight of persons walking upon it; and third, by a too thorough impregnation of the fabric with paint so that the entire fabric becomes stiffened instead of the paint simply forming a coating on the surface.

Let us consider these objections in their proper order. A proper bond can be obtained by the intelligent use of a high-grade marine glue, such as Jeffery's applied, according to the directions on each can. The second objection is one which must be cared for when the deck is constructed, but, if the present deck planking is light and the edges are not planed smooth a satisfactory job can still be obtained by laying sheets of building felt down in the glue and then glue again, and finally the canvas. The system provides a soft pad between wood and canvas and prevents the edges of the planks from cutting the fabric. Incidentally, it is a good thing on any deck, for the surface is smoother and much pleasanter to walk upon.

The third item, that of impregnating the fabric, can be adjusted by sponging the canvas with fresh water after it is stretched in place and before the paint is applied. The water will fill the pores of the canvas and prevent the paint from sinking through. In addition, always use as few, and as thin coats of paint, as possible. As a general rule, not over three coats of thin paint should be used on a new job, and not over one coat used each year. After about eight coats are on the job is ready for burning off and repainting with about two coats.

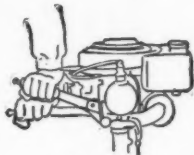
In originally applying canvas, it is always advisable to get the entire piece in one width. If seams are necessary, have them sewed by a sailmaker instead of trying to make a lap seam with tacks. First apply the glue according to the directions and then stretch the canvas as tightly as possible, using a block and tackle if the piece is very large and have plenty of helping hands. Before tacking over the edge of the deck, start at the center, and, with smooth piece of wood, iron the fabric towards the sides. This will increase the bond and take out all wrinkles. After tacking, sponge the surface, wipe free of all visible drops, and then paint immediately. This is the system used in many of the best known yacht yards throughout the country.—W. C. T., New York, N. Y.

## S. L. Robertson Joins New Jersey Paint Works

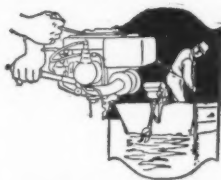
S. L. Robertson has been added to the sales force of the New Jersey Paint Works, Harry Louderbough, Inc., Jersey City, N. J., looking after the dealers' trade in Brooklyn.



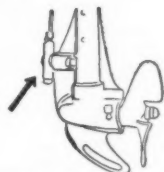
## EVINRUDE "Champion" Features



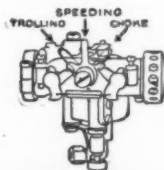
**Automatic Instantaneous Reverse**  
Exclusive Evinrude feature. Just a lift of the tiller sends your boat astern. You don't take your eyes off the course ahead—you don't swing the motor even a fraction of an inch—you don't have to stop it and crank it backwards. This positive, fast reverse makes this the most safe and easily maneuvered outboard on the market.



**Automatic Tilt-Up—yet Motor Locks Rigid for Starting**  
Another exclusive Sport Twin feature. When the propeller strikes an obstruction (or boat is grounded in shallows as shown above) the motor tilts automatically, snubbing the shock and preventing damage to the boat, motor or propeller. An easy, instant tiller setting locks motor rigid for starting. No wobbling—no side-sway—just a straight line pull on the Easy-Starter and away you go.



**Power-Focus Drive**  
Evinrude is the only outboard motor using costly ball bearings in power transmission—sealed in a water-and-sand-tight housing. Power is conserved and focused at the propeller blades where power really counts. Arrow points to famous "No-Clog" pump, located high up above dirt and mud.



**Carburetor**  
—choke for instant starting like your car. Rich, combustible mixture at the flip of a valve—instant starting. Speeding mixture, trolling mixture. Needle valve, too, for perfect results under any weather or climatic conditions.



**THE** greatest Evinrude ever built—and that means the world's finest outboard motor! Not built for speed alone, for power alone, nor just for lightness. Created, instead, to combine perfectly these three ideals.

A revelation in eager power and smooth speed; an achievement in handy operation—quick to start, reverses instantly, easily set for slow trolling or racing speed to and from the fishing grounds. Light weight, too—yet not a single sacrifice of strength.

The key to new pleasures in Vacationland—the new Evinrude Sport Twin. A true "1925 Champion"—named so because it is.

Write for copy of the new 1925 "Evinrude Year Book." Know why other motors are not Evinrudes. See your dealer and he will show you—point for point—why over 175,000 use motors of this make.

*More Evinrudes in use than all other makes combined.*

**EVINRUDE MOTOR COMPANY**

340 Evinrude Building Milwaukee, Wisconsin

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The New 1925 Champion  
**EVINRUDE**  
Sport Twin

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# Announcing a *NEW* Brennan Standard Motor

The popular Model D-4 further refined, improved and completely enclosed.

All enthusiasts in the boating field will be interested in this innovation of Brennan Motors.

## *An Outstanding Feature*

The wheel is completely enclosed. The housing is not an attachment—but is built in—solid and rigid as an integral part of the base.

It constitutes the de luxe model of the most complete line.

## Greatest Values in Marine Field

You will find several features in the Brennan that are embodied only in motors selling at several times their cost. Your comparison will confirm the fact that the Brennan represents the greatest 1925 marine motor value.

The different models cover power requirements suitable for every size and type of pleasure craft, fishing boats and work boats. The power range is a broad one, 17-100 h.p.

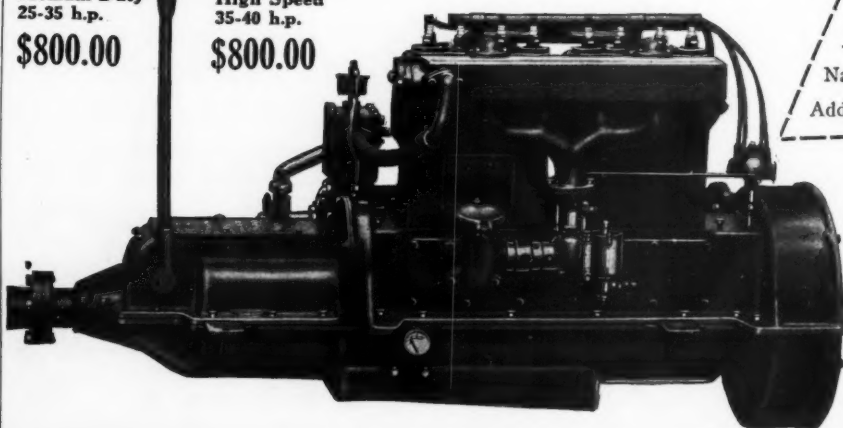
Every motor is furnished complete—no extra required.

Model D-4  
Medium Duty  
25-35 h.p.

**\$800.00**

Model D-4  
High Speed  
35-40 h.p.

**\$800.00**



### A New Sale Plan

that will interest every boat owner, builder and dealer. Write for it today.

### A Line That Has Stood the Test of Time

The Brennan Standard has always been a quality motor. It constitutes one of the oldest makes of marine engines on the market, and a motor has never been offered by the House of Brennan that did not come up to the highest standard of power and reliability.

**"Write Brennan  
Before You Buy"**

#### Coupon:

Send me your new sale plan.  
My requirements are.....

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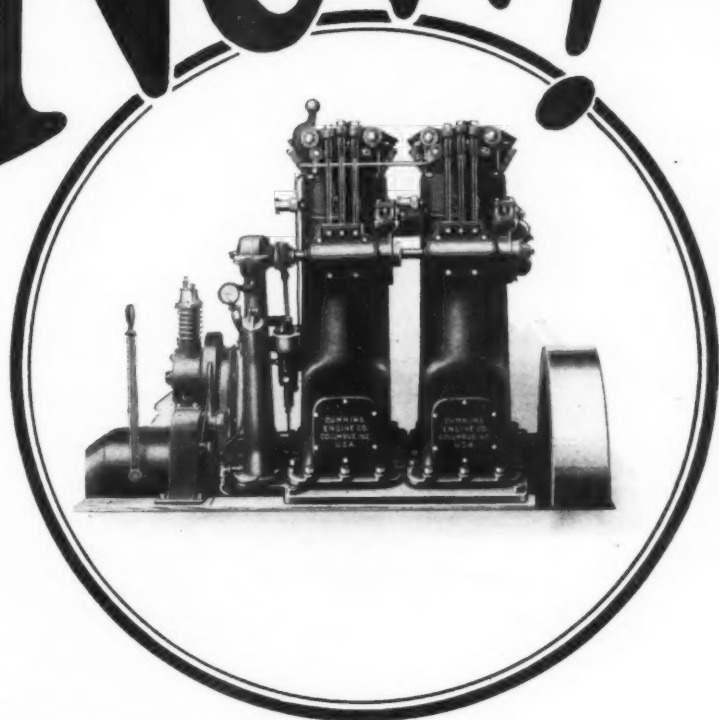
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MFG. CO.**

500 E. WATER ST.  
SYRACUSE, N. Y.

# Now!

You Can Replace  
Your Gasoline  
Engine With A  
Full Diesel Oil  
Engine of Similar  
Weight, Size and  
Power!



### Read What This User Says:

"The single cylinder 12½ H.P. Cummins Oil Engine, which I installed in my boat fourteen months ago has been in continuous operation under the most trying conditions, which is trawling for shrimp in the Louisiana marshes and Gulf of Mexico. I have not spent five cents for repairs. Have had cylinder head off but once for grinding valves, and found engine absolutely free from carbon. Fuel consumption is about ¼ pound per brake horsepower hour, which is very remarkable. I have just installed my second 12½ H.P. engine and expect to install the 3-cylinder engine within the next two weeks."

—J. W. Enright, New Orleans, La.

**H**ERE is a thoroughly tested oil engine for your boat which requires no more space than a gasoline engine, and gives you the same power at about one-tenth the cost of operation. This CUMMINS Oil Engine—full Diesel in every respect—develops 12 H.P. per cylinder at 600 R.P.M. Built in one to six cylinder units, 12 to 75 H.P. Flexible as a gasoline engine—idles indefinitely without attention. Perfectly balanced—minimum vibration. No blow torches, cigarettes, or electrical devices. Starts instantly, stone cold. These many advantages are made possible by the **exclusive** CUMMINS simplified air injection which eliminates the expense and complication of high pressure injection air. Write at once for full facts and prices.

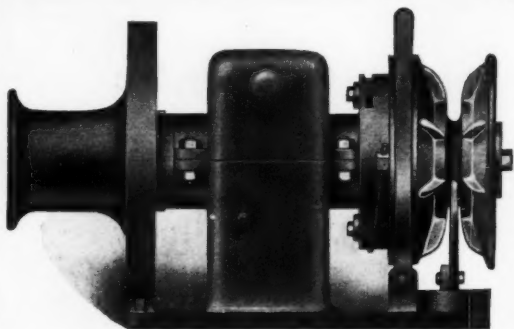
CUMMINS ENGINE COMPANY  
COLUMBUS, INDIANA

Completely  
Eliminates  
Danger from  
Fire and  
Explosion

# CUMMINS Oil Engines

No Skilled Diesel  
Engineers  
Required  
—Simple and  
Easy to Operate





A-E-CO HAND PUMP BRAKE WINDLASS

## Practical and Inexpensive !

The new A-E-CO Hand Pump Brake Windlass is especially designed for schooners and other boats where electric power is not available—it is ruggedly built for long, hard service, yet is remarkably small, light and compact—quick acting and quiet—absolutely reliable—entire unit is self-contained and easy to install—operation is simple—nothing to get out of order—made for  $\frac{3}{8}$ ",  $\frac{7}{16}$ " or  $\frac{1}{2}$ " chain and guaranteed to fit—wild-cat and head can be operated separately—has two mooring bits—and it is surprisingly inexpensive—you can afford it.

Write for complete details,  
prices, dimensions, etc.

### American Engineering Company

2419 Aramingo Ave., Philadelphia, Pa.

### A-E-CO Stockless Anchor



**holds on  
any kind  
of bottom**

## Yard and Shop

(Continued from page 138)

### Agencies Open

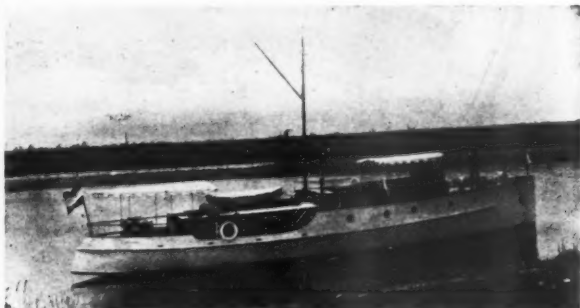
The International motor which was formerly made by the International Motor Company of Detroit, is now being manufactured by Sutter Brothers of New York, who have taken over the entire production of these machines. They are seeking reputable trade connections with dealers in several sections of the East, to assist in the sales of these machines. Since taking over the engine they have made several improvements in it, which increase its value. Among these are American Bosch ignition devices and an enclosed Joe's reverse gear.

### A Knock Down Catalog

An interesting booklet has just been issued by the Brooks Boat Company of Saginaw, Mich., which describes and illustrates a large number of their stock boat hulls which are furnished in knock-down form. This is a popular way to secure boat material, and many young men throughout the country are building themselves boats suitable to their localities. The fact that many of these boats are adaptable to being driven by the Gray model Z and V engines, is also of interest, since the low cost of these machines, and this economical method of boat building, permit many to undertake a job, which would otherwise be beyond their means.

### Homelite Sets Abroad

The large French cruiser Saint Hubert, owned by France Haincque de Saint Senoch of Neuilly y Seine, is one of several boats owned by this gentleman, who is a member of the oldest and best known families in France. This boat is equipped with a Homelite electric generating set to furnish auxiliary current for lighting, and we are indebted to Charles H. Ferguson, President of the Homelite Corporation, for the photograph and data.



Saint Hubert, a French Cruiser, Equipped with a Homelite Set

### Hall-Scott Sales Office Moved

Last month we mentioned that the Eastern sales and service branch of the Hall-Scott Motor Car Company, which is in charge of Arthur J. Utz, was preparing to relocate in New York City. This move has now been completed, and the New York office at 461 Eighth Avenue is in full operating order. Service of all kinds can be secured on any of the Hall-Scott engines, and a full stock of marine parts is kept on hand so that there will be no delay in shipping them when required. A brief mention has been issued of a new four and six-cylinder engine, which is to be fitted with a sliding gear transmission, with positive forward and reverse control. It is intended that this machine should drive a large size propeller at an approximately three-to-one ratio, and propellers can be driven at as low as 75 r.p.m. for maneuvering and control.

### A New Catalog

The Scripps Motor Company of Detroit, Mich., builders of the Scripps engines which were used to drive the new class of Biscayne Baby runabouts in the races at Miami, have issued a new catalog, which contains a full and complete description of all of the several types and varieties of engines, which they build. Interested readers of *Motor Boating* can secure a copy of this booklet by writing to the Scripps Motor Company at 5819 Lincoln Ave., Detroit, Mich.

(Continued on page 160)

# Selling on Reputation



## The New EXTRA RESERVE STEARNS MARINE ENGINE

# "6"

### HIGH SPEED AND MEDIUM SPEED TYPES

MDR-6 Bore  $5\frac{1}{8}$ ", Stroke  $6\frac{1}{2}$ "—160 H.P.

MDU-6 Bore  $5\frac{1}{8}$ ", Stroke  $6\frac{1}{2}$ "—100 H.P.

Cylinder Displacement 805 cu. in.

### STEARNS FOUR CYLINDER MODELS

#### MEDIUM SPEED

MHU— $4\frac{1}{2}$ " x 6", 20-50 H.P., 1050 lbs..... \$900  
MDU— $5\frac{1}{8}$ " x  $6\frac{1}{2}$ ", 35-70 H.P., 1750 lbs..... \$1390

#### HIGH SPEED

MHR— $4\frac{1}{2}$ " x 6", 80 H.P., 900 lbs..... \$1090  
MDR— $5\frac{1}{8}$ " x  $6\frac{1}{2}$ ", 125 H.P., 1300 lbs..... \$1550

**T**HE wonderful performance of Stearns Fours is responsible for the overwhelming approval in the form of advance orders for the latest Stearns Extra Reserve Marine Engine—a Six, the newest Six on the market.

You can have no adequate idea of how really good a marine engine can be until you Try a Stearns Four or Six. It is quiet and vibrationless. From instant pick-up to sudden retarding of motor, you get maximum power. It responds instantly to every touch of the throttle.

Dependability for uninterrupted service is the ruling factor in the Stearns Four and Six. Each part is manufactured with that thought in mind. The crankshaft is a very heavy chrome nickel steel forging, heat treated to a scleroscope hardness of 50 to secure an elastic limit of 140,000 pounds per square inch.

*Write direct to us for particulars or see our local dealer.*

## STEARNS MOTOR MANUFACTURING CO.

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## KAINER NEW IMPROVED BOAT STEERING GEARS

Kainer steerers are designed strictly for marine use and embody all improvements desired in an up-to-date and reliable steering gear. Kainer steerers are equipped with black bakelite horn button, finishing collars, and new style "finger type" spark and throttle control levers.



Note auto type steerer is adjustable to different angles, a new feature filling a long-felt want.

The steering wheel is of genuine walnut with inserted spider, and is furnished with either metal spider or all wood spider inserted type. The drum is driven by heavy tubing inside of main column and is securely keyed to the tubing which is also keyed to the steering wheel hub.



Class I combination Post Light with Red and Green Lenses.

### KAINER RUNNING LIGHTS

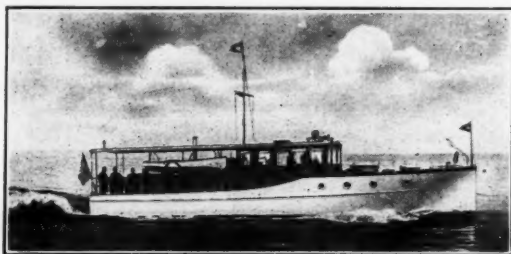
Heavy cast brass, built to last. Non-rattling glass. Top of Class I and II Bow Lights screw off permitting easy access to bulb and wiring without detaching the light from the deck.

Write today for Catalogue "A"

## KAINER & COMPANY

CHICAGO

761-763 Mather Street



55-foot enclosed bridge cruiser

Standardized cruisers 33, 36, 40, 45, 50, 55 and 62 feet and runabouts 26 and 28 feet in length. Special or custom jobs any size or type up to 150 feet in length.

**ROCHESTER BOAT WORKS, INC.**  
 10 Charlotte Station Rochester, N. Y.

Originators of the standardized enclosed bridge deck.

## Brooks

### KNOCK-DOWN BOAT FRAMES

Save You Two-Thirds the  
Cost of Any Type Boat

THE Brooks system is the only method of easy boat building. Over 55 designs to select from—CABIN CRUISERS, V-BOTTOM RUNABOUTS, HYDROPLANES, ROW BOATS and SAIL BOATS, all of modern design. Our new 64-page book of designs completely describes each boat and fully explains how easily and quickly it can be built. Send 25c for this book today—don't wait. You can still build a Brooks boat in time to enjoy it this season.

**BROOKS BOAT CO., INC., Dept. 33, Saginaw, Mich.**  
 Originators of the pattern and KNOCK-DOWN system of Boat Building

## Yard and Shop

(Continued on page 158)

### A Victory for Old Man Joe

News has just drifted in from Buffalo to the effect that Old Man Joe of the Snow & Petrelli Mfg. Co. has won another big victory in the great race of business.

E. L. Grimm, President of the Peerless Marine Motor Co., who has used the Joe gear on his famous line of heavy duty engines, has now also standardized on the Joe's duplex drive gear for his new line of medium and high speed motors, which created a sensation at the New York Show.

Mr. Grimm tells the Snow & Petrelli Mfg. Co. that he chose Joe's duplex drive gear for his new line largely because it transmits the power direct from the motor to the propeller through double friction clutches and not through locked gear teeth, thus avoiding the strain and backlash of the gear teeth on the forward drive, which wears, distorts, and works havoc by breaking the teeth off.

Mr. Grimm is evidently not alone in the discovery of this unique quality of Joe's gear, as it is the same type of gear used by Gar Wood, Col. Vincent, Harry Greening and other speed kings. Its ability to reverse the propeller at 88% of motor speed also apparently means more than a talking point to these experts.

### A Busy New Plant

Furness Boats of Sea Bright, N. J., since starting in business in January have found much demand for their boats, and a number of 30, 35 and 40-foot lap strake cruisers are under construction in their shops. One of these is to be powered with two of the new six-cylinder 100 h.p. Kermath engines, and is intended for Cheston Simmons, Red Bank, N. J. A smaller boat, 30 feet in length, for H. Feuchtwanger in New York, will be powered with one Kermath engine. Another will be fitted with a 24 h.p. Standard engine, and a number of others are still open. The shops of this company are large, modern buildings, and the personnel has recently been enlarged by the addition of Charles D. Fish as construction superintendent. The little 25-foot stock cruiser is proving to be very popular, and the plant is taxed to the utmost to keep up with the demand.

### The New Universal Flexifour

The Universal Motor Company of Oshkosh, Wis., who are well known manufacturers of four-cylinder engines, announce their new Flexifour industrial engine.

This new Flexifour industrial engine is a comparatively small four-cylinder, four-cycle engine of 2½-inch bore and 4-inch stroke, of sturdy construction, yet with great flexibility and smoothness of operation. The engine was designed for heavy duty service and is furnished with various equipment, which makes it adaptable for all industrial uses requiring up to 10 h.p.

The accompanying illustration shows the engine equipped with Bosch magneto ignition, Zenith carburetor, governor and flywheel. Various other equipment is supplied, such as radiator and fan for cooling, disc clutch, reduction drive, and a sheet metal house covering the complete unit.

The engine with all the various equipment is covered in detail in the catalog published by the manufacturer, and a copy may be secured by writing to the Universal Motor Company, Oshkosh, Wis., requesting a copy of Bulletin 100F.

### New Magneto for Outboards

Of extreme interest to the marine engine manufacturers, especially those producing outboard motors, is the announcement of the Eisemann Magneto Corporation, of 165 Broadway, New York, that they have now in production a flywheel type magneto.

This instrument is a high tension, waterproof magneto, which is assembled into the flywheel. Its design is simple and its quality comparable to that of the standard magnetos manufactured by this corporation. Tests have shown the unit to be very efficient and to afford perfect ignition for these small engines. It is particularly adaptable for small inboard and outboard motors of the one and two-cylinder class, used in rowboats, canoes and other small craft.

The Eisemann Magneto Corporation is the first American manufacturer of the standard high tension magnetos to offer this type of ignition for small marine and stationary engines.

The Caille Perfection Motor Company of Detroit, Mich., have adapted this magneto as standard for their 1925 requirements on their Caille five-speed lightweight twin outboard motor and several other marine and stationary engine manufacturers have tested this new product with most satisfactory results.



